

TPTCM60II

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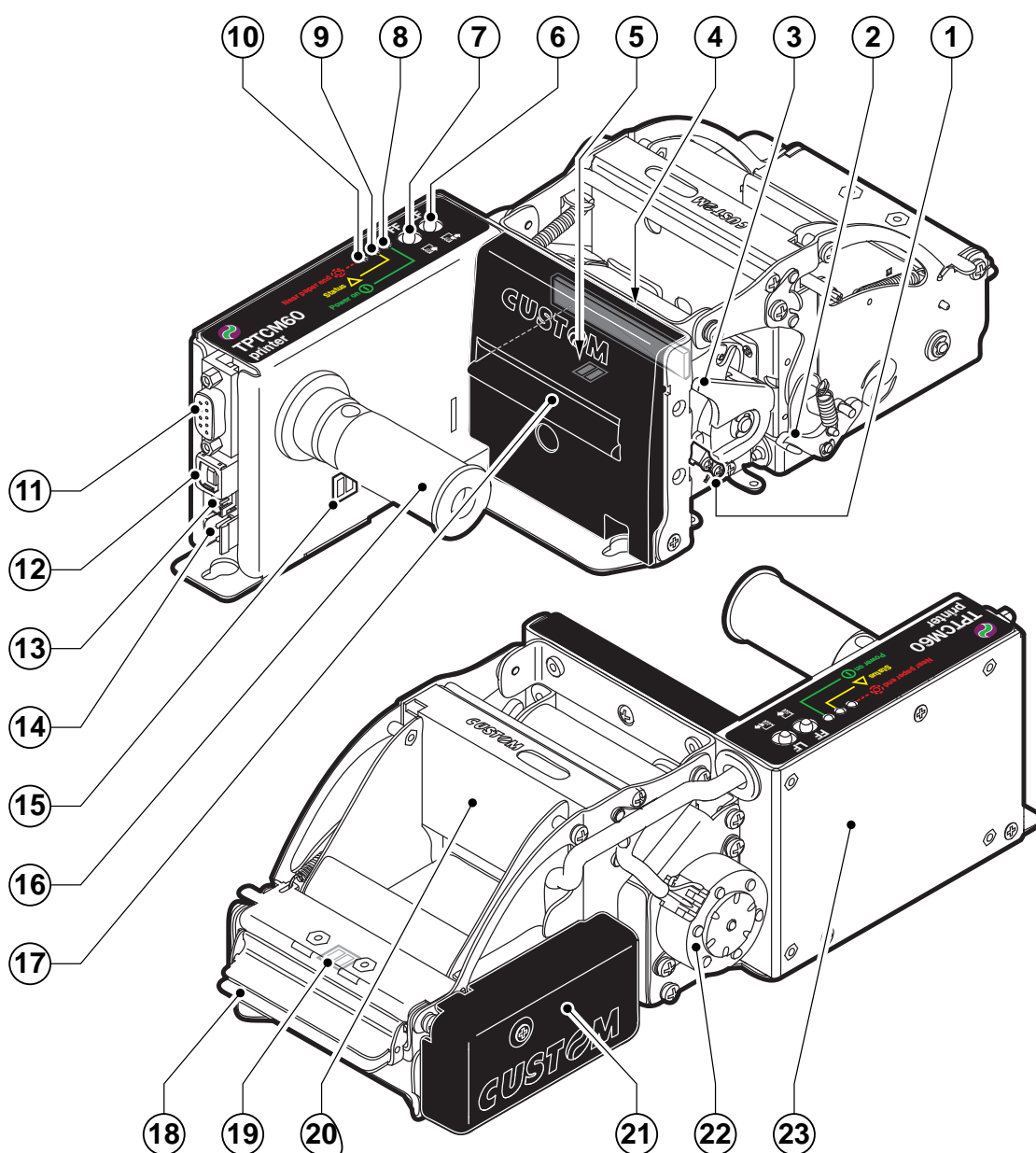
**THE IMAGES USED IN THIS MANUAL ARE USED AS AN ILLUSTRATIVE EXAMPLES.
THEY COULDN'T REPRODUCE THE DESCRIBED MODEL FAITHFULLY.**

**THE INFORMATIONS GIVEN IN THIS MANUAL ARE REFERRED TO ALL MODELS
UNLESS OTHERWISE SPECIFIED**

PRINTER COMPONENTS

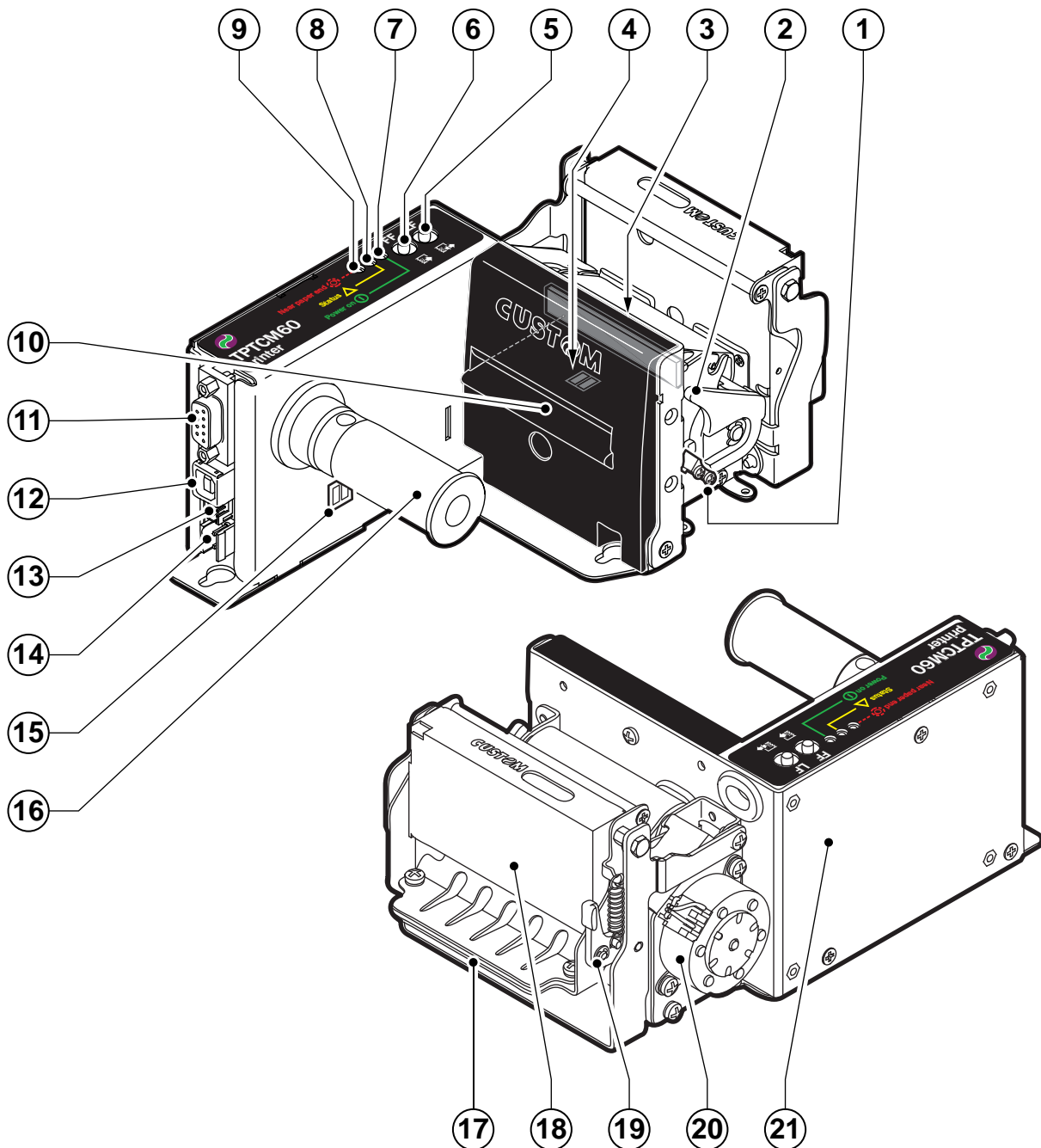
TPTCM60II-UE

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Unblocked print head sensor 2. Unblocking lever for cutter + ejector unit 3. Unblocking lever for print head 4. Printing mechanism + head sensor 5. Paper in sensor 6. LF LINE FEED key 7. FF FORM FEED key 8. POWER ON Led 9. STATUS Led 10. NEAR PAPER END Led 11. RS232 serial interface connector 12. USB serial interface connector | <ol style="list-style-type: none"> 13. Near paper end connector (<i>Paper roll holder support: OPTIONAL</i>) 14. Power supply connector 15. Near paper end sensor 16. Paper roll holder 17. Paper in 18. Paper out 19. Paper out sensor 20. Autocutter 21. Ejector motor 22. Printing mechanism motor 23. Metal chassis with control board. |
|--|--|



TPTCM60II-UC

- | | |
|--------------------------------------|---|
| 1. Unblocked print head sensor | 12. USB serial interface connector |
| 2. Unlocking lever for print head | 13. Near paper end connector (<i>Paper roll holder support: OPTIONAL</i>) |
| 3. Printing mechanism + head sensor | 14. Power supply connector |
| 4. Paper in sensor | 15. Near paper end sensor |
| 5. LF LINE FEED key | 16. Paper roll holder |
| 6. FF FORM FEED key | 17. Paper out |
| 7. POWER ON Led | 18. Autocutter |
| 8. STATUS Led | 19. Unlocking lever for cutter unit |
| 9. NEAR PAPER END Led | 20. Printing mechanism motor |
| 10. Paper in | 21. Metal chassis with control board. |
| 11. RS232 serial interface connector | |



TPTCM60II-UC-0145

1. Unblocked print head sensor
2. Unblocking lever for print head
3. Printing mechanism + head sensor
4. Paper in sensor
5. LF LINE FEED key
6. FF FORM FEED key
7. POWER ON Led
8. STATUS Led
9. NEAR PAPER END Led
10. Paper in
11. RS232 serial interface connector
12. USB serial interface connector
13. Near paper end connector (*Paper roll holder support: OPTIONAL*)
14. Power supply connector
15. Near paper end sensor
16. Paper roll holder
17. Fork sensor for notch
18. Paper out
19. Autocutter
20. Unblocking lever for cutter unit
21. Printing mechanism motor
22. Metal chassis with control board.

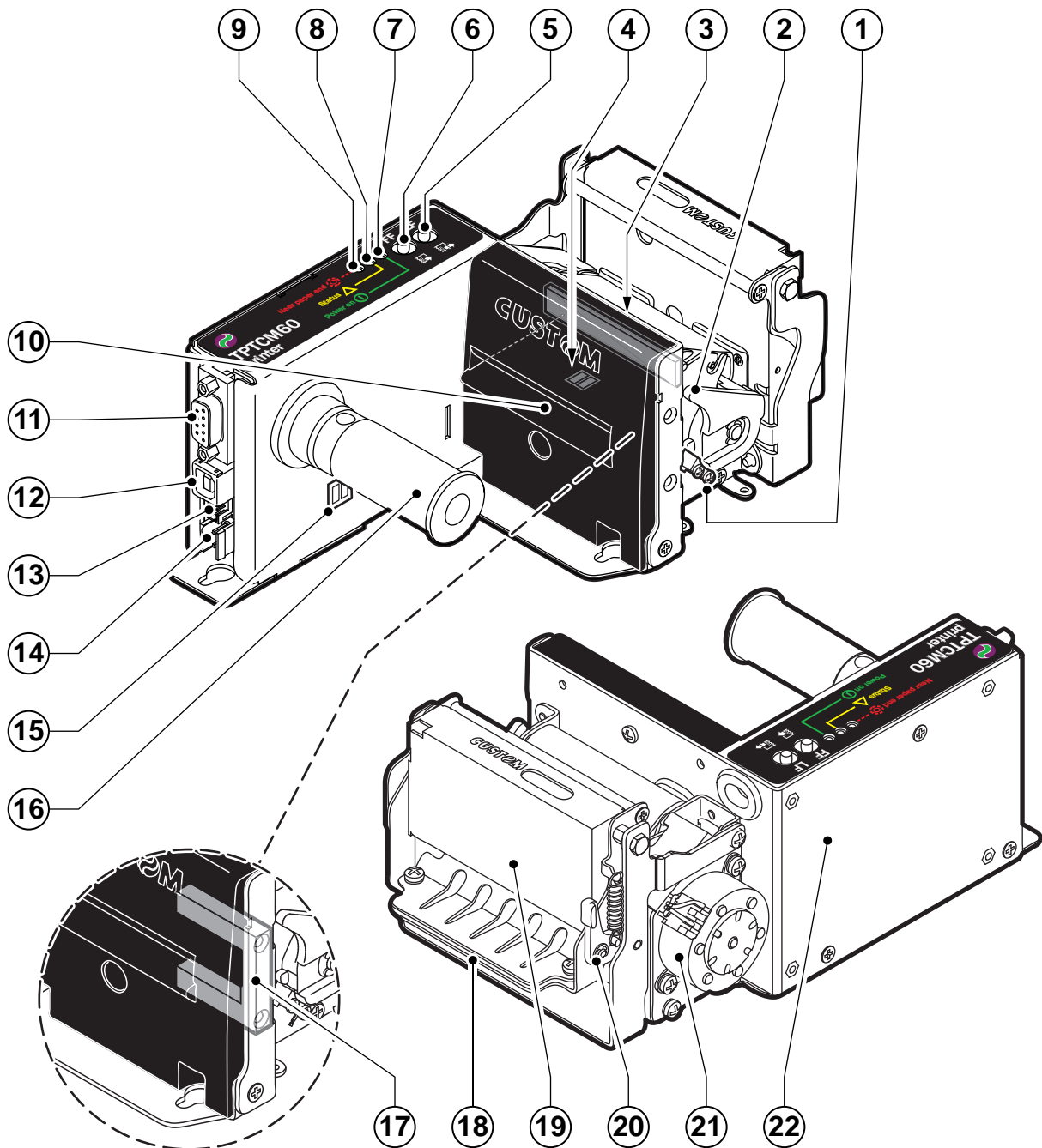


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1 INTRODUCTION

In addition to the Introduction which includes a description of the explanatory notes used in the manual, general safety information, how to unpack the printer and a brief description of the printer including its basic features, this manual is organized as follows:

Chapter 1:	Contains the information required for correct printer installation and its proper use
Chapter 2:	Contains information on interface specifications
Chapter 3:	Contains a description of the printer command set
Chapter 4:	Contains Technical Specifications of the printer
Chapter 5:	Contains the character sets (fonts) used by the printer

1.1 Explanatory notes used in this manual

**N.B.**

Gives important information or suggestions relative to the use of the printer.

**WARNING**

Information marked with this symbol must be carefully followed to guard against damaging the printer.

**DANGER**

Information marked with this symbol must be carefully followed to guard against operator injury or damage.

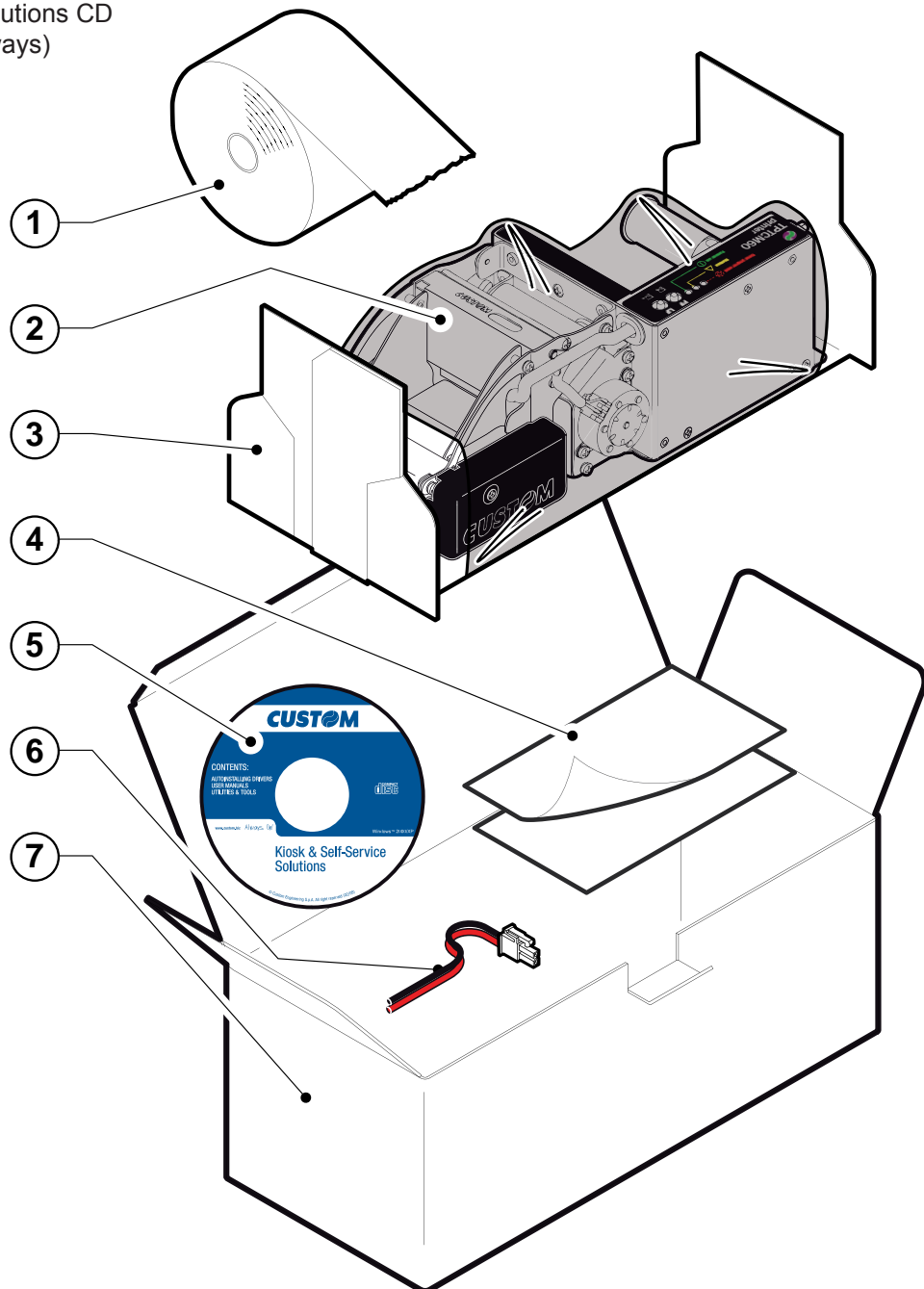
1.2 General safety information

- Read and keep the instructions which follow.
- Follow all warnings and instructions indicated on the printer.
- Before cleaning the printer, disconnect the power supply.
- Clean the printer with a damp cloth. Do not use liquid or spray products.
- Do not operate the printer near water.
- Do not use the printer on unstable surfaces that might cause it to fall and be seriously damaged.
- During the integration of the printer, we strongly warn to keep an adequate paper loop outlet underneath the presenter, in order to allow the receipt being properly printed out.
- Only use the printer on hard surfaces and in environments that guarantee proper ventilation.
- Make sure the printer is placed in such a way as to avoid damage to its wiring.
- Use the type of electrical power supply indicated on the printer label. If in doubt, contact your retailer.
- Do not block the ventilation openings.
- Do not introduce foreign objects of any kind into the printer as this could cause a short circuit or damage parts that could jeopardize printer functioning.
- Do not spill liquids onto the printer.
- Do not carry out technical operations on the printer, with the exception of the scheduled maintenance procedures specifically indicated in the user manual.
- Disconnect the printer from the electricity supply and have it repaired by a specialized technician when:
 - A. The feed connector has been damaged.
 - B. Liquid has seeped inside the printer.
 - C. The printer has been exposed to rain or water.
 - D. The printer is not functioning normally despite the fact that all instructions in the users manual have been followed.
 - E. The printer has been dropped and its outer casing damaged.
 - F. Printer performance is poor.
 - G. The printer is not functioning.

1.3 Unpacking the printer

Remove the printer from its carton being careful not to damage the packing material so that it may be re-used if the printer is to be transported in the future. Make sure that all the components illustrated below are present and that there are no signs of damage. If there are, contact Customer Service.

1. Paper roll
2. Printer
3. Protection packing shell
4. Installation instructions
5. Kiosk & Self-Service Solutions CD
6. Power supply cable (2 ways)
7. Box



- Open the printer packaging.
- Take out the paper roll.
- Take out the installation instructions and CD.
- Lift the protection packing shell and take out the printer.
- Keep the box packing materials in the event the printer must be transported/shipped in the future.

1.4 General features

The TPTCM60II printer represents the restyling of TPTCM60 with autocutter of 1M/cuts. Suitable for applications in info and multimedia kiosks, self-service machines, queue management systems, parking, gaming/lottery machines, toll tickets. The printer is equipped with:

STATUS MONITOR

Additional printing driver component that gives remote visibility of paper and printer status, jams, near-end of paper and end of paper status and information on the number of tickets or prints. The software can even be set to send email alerts, making easier remote maintenance operations.

MOTORISED DISPENSER (only TPTCM60II-UE)

Some sensors on the dispenser are able to hold the ticket inside during printing and to eject it at 1m/sec speed. Suitable those systems where tickets of variable length are printed.

Other main features:

- High printing speed: 140mm/sec.
- ESC/POS and CUSTOM TPT Emulation.
- 6 standard and international character set fonts (GB2312 simplified Chinese font: OPTIONAL).
- Completely or partially-programmable fonts.
- Double width/height, quadruple width/height, expanded, italic, rotated 90°, 180° and 270°.
- Receive buffer: 16Kbytes.
- Definition of function macros for automatic operation repetition.
- Internal programmable counter.
- Graphic print mode.
- Print density.
- 6 programmable logos (448 x 292 dots).
- Paper cutter.
- Positionable paper roll holder (optional)
- Plastic paper outfeed slot (optional).

1.5 Printer description

The TPTCM60II printer is comprised of a metal frame, paper roll holder, printing mechanism, ejector and a cutter. The following keys are located on the control panel: FF FORM FEED, LF LINE FEED, “POWER ON” Led, “NEAR PAPER END” Led and “STATUS” Led.

- **FF FORM FEED key**

During power-up, if the FF FORM FEED key is held down, the printer will perform the GRAPHIC TEST.

If the FF FORM FEED key is enabled, press it with printer on to print all the logos stored in the printer. If the FF FORM FEED key is not enabled and the printer is in Custom Emulation mode, when the key is pressed, the code \$0C is transmitted on the RS232 serial line. This function may be modified by the \$1B \$3D software command (see Command Reference).

- **LF LINE FEED key**

During power-up, if the LF LINE FEED key is held down, the printer will perform the FONT TEST routine. If it has the version with chinese simplified font GB2312 at the end of the FONT TEST is printed all characters set.

With printer on, when the LF LINE FEED key is pressed, the printer advances the paper so that it may be inserted manually in the printing mechanism.

- **FF + LF key**

During power-up, if both keys are held down, the printer enters the print SETUP routine. Following the print-out of the setup report, the printer remains in standby until a key is pressed or signals arrive from the serial port; each 8 characters it prints out hexadecimal and ASCII codes (if the characters are underlined, the receive buffer is full); see Receive buffer hexadecimal print-out.

- **“POWER ON” Led**
(green)






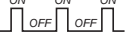
Indicates that the printer is on.

- **“Near Paper End” Led**
(red)

Indicates that the paper is about to run out.

- **“STATUS” Led**
(yellow)

Indicates printer status; the check is made on-line. Given in the table below are the various LED signals and the corresponding printer status.

STATUS LED	COLOUR	DESCRIPTION	
	OFF	Error	
	ON	Printer on: no error	
	FLASHING	RECOVERABLE ERROR	
		Fast 	Heading over temperature
		Slow 	Paper end
		Slow (Fast ON) 	Print head unblocked

2 INSTALLATION AND USE

2.1 Power Supply

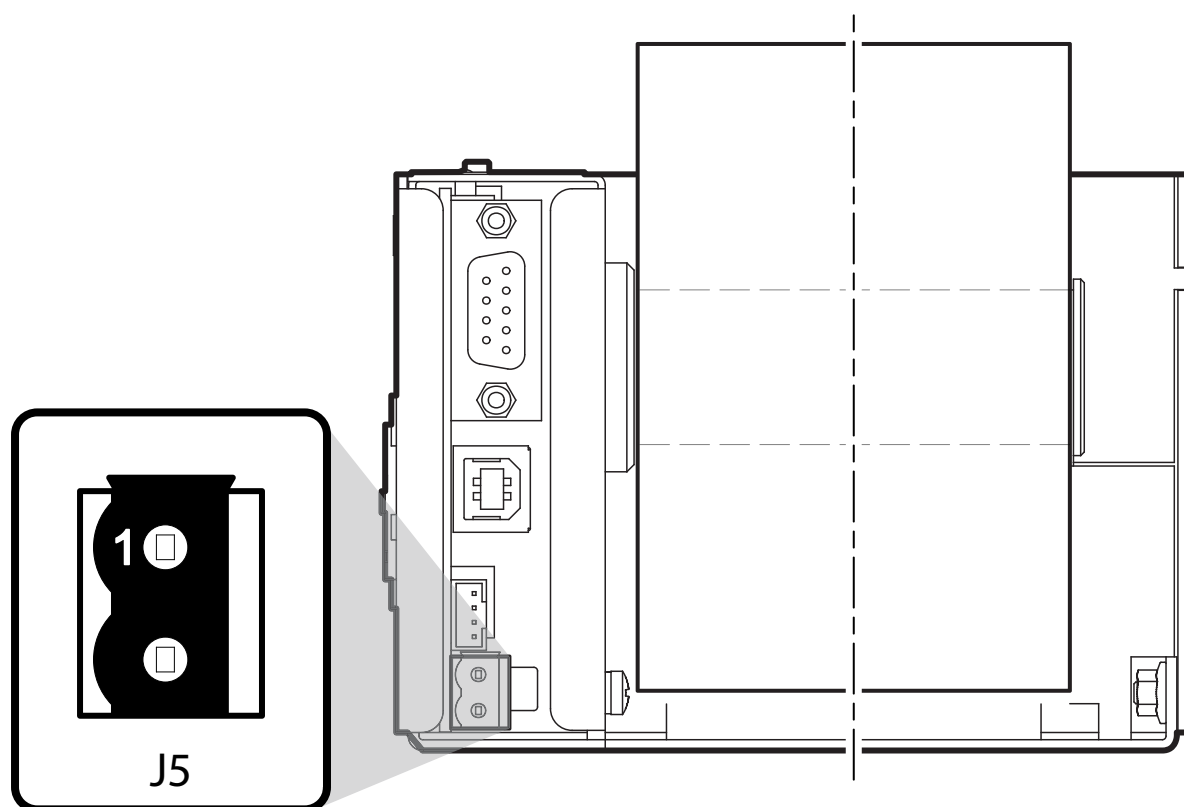
For the power supply, the printer is equipped with a male, 90° mobile screw terminal. The signals on the power supply connector pins are as follows:

PIN	SIGNAL	DESCRIPTION
1	GND	Ground signal
2	+Vin*	Vcc Power supply

CONNECTOR TYPE:

Header: 90° Mobile screw terminal (pitch 5.08mm)

Housing: Mobile screw terminal (AWG 20-14)



NOTE

(*) For further informations see Chapter 4.



WARNING

Respect power supply polarity.

2.2 Self-test

Printer operating status is indicated in the configuration print-out in which, next to the name of the components displayed (see Figure), the following information is given:

- under **INTERFACE** is given the interface present. When USB cable is plugged, the message USB will appear next to the address assigned by the Host to the USB peripheral device in use (see Figure). When the serial cable is plugged the message RS232 will appear.
- under **EEPROM TEST**, the message OK appears if functioning and NOT OK if faulty.
- under **CUTTER TEST**, the message OK appears if functioning and NOT OK if faulty.
- • under **EJECTER TEST**, the message OK appears if functioning and NONE if the printer is not equipped with the ejecter unit (TPTCM60II-UC and TPTCM60II-UC-0145).
- • under **NOTCH THRESHOLD** is given the notch sensor output voltage (0.8 = default value).
- under **HEAD TEMPERATURE** is given the temperature of the head.
- under **PAPER PRINTED** is given the number of centimeters of paper printed.
- under **CUT COUNTER** is given the number of cuts made.
- under **POWER ON COUNTER** is given the number of power-ups made.

PRINTER SETUP

INTERFACE	USB: 1
EEPROM TEST.....	OK
CUTTER TEST.....	OK
EJECTER TEST.....	OK
NOTCH THRESHOLD [V]	= 0.8
HEAD TEMPERATURE [°C]	= 22.5
PAPER PRINTED [cm]	= 840
CUTCOUNTER	= 604
POWER ON COUNTER	= 189
Printer Emulation.....	CUSTOM TPT
Baud Rate	9600 bps
Data Length	8 bits/chr
Parity	None
Handshaking	XON/XOFF
USB Address N.	0
USB Status Mon	Disabled
Autofeed	CR Disabled
Panel Key	Enabled
Print Mode	Normal
Height Mode	x 1
Width Mode	x 1
Justification.....	Left
Font dimension	16x24 28 col.
Chars / line	A=32 / B=42 col
Speed / Quality.....	Normal
Current	Normal
Paper autoloader	Enabled
Reset Buffer.....	At Paper End
Print Density	Normal

[FF] key to enter setup

[LF] key to skip setup

2.3 Configuration

During power-up, if both the LF LINE FEED and FF FORM FEED keys are held down, the printer enters configuration mode and prints-out the SETUP report. It will remain in standby until a key is pressed or characters are received through the communication port (see Hexadecimal dump).

When the FF FORM FEED key is pressed, the printer enters the parameter entry mode. Press the FF FORM FEED key to change the value or the LF LINE FEED to skip to the next parameter. After the last parameter another SETUP report is printed.

This printer permits the configuration of default parameters. The printer's configurable parameters are:

- **Printer emulation:** ESC/POS™, CUSTOM TPT[®].
- **Baud Rate** ⁽¹⁾: 1200, 2400, 4800, 9600 [®], 19200, 38400, 57600.
- **Data length** ⁽¹⁾: 7, 8 [®] bits/car.
- **Parity** ⁽¹⁾: None [®], Even or Odd.
- **Handshaking** ⁽¹⁾: XON/XOFF [®], Hardware.
- **USB Address Number** ^{(2) (3)}: 0 [®], 1, 2, 3, 4, 5, 6, 7, 8, 9.
- **USB Status Monitor** ^{(2) (4)}: Disabled [®], Enabled.
- **Autofeed:** CR disabled [®], CR enabled.
- **Panel Key:** Disabled, Enabled [®].
- **Print Mode:** Normal [®], Reverse.
- **Height Mode:** x1 [®], x2, x4.
- **Width Mode:** x1 [®], x2, x4.
- **Justification:** Left [®], center, right.
- *With CUSTOM TPT* **Font dimension** ⁽⁵⁾: 16x24 28 col [®], 24x32 18 col, 8x16 56col.
- *With ESC/POS™* **Chars/line** ⁽⁶⁾: A=32/B=42 col [®], A=42/B=56 col.
- **Speed/Quality:** Normal [®], Draft or High Speed.
- **Current:** Normal [®], High or Low.
- **Paper Autoload:** Disabled, Enabled [®].
- **Reset Buffer:** At Paper End [®], No.
- **Print density:** Normal [®], Very Light, Light, Very Dark, Dark.

The settings made are stored in EEPROM (nonvolatile memory).

General Note: The parameters marked with the symbol [®] are the default values.

Note⁽¹⁾: This parameter is displayed if the serial cable is plugged.

Note⁽²⁾: This parameter is displayed if the USB cable is plugged.

Note⁽³⁾: This parameter used to identify univocally the USB printer by a numerical address code, if on the PC are connected two printers that are the same models for example two TPTCM60II.

Note⁽⁴⁾: The Status Monitor is an additional printing driver component that allows the printer status monitoring. It must be enabled only if it was installed the Status Monitor specific driver.

Note⁽⁵⁾: This parameter is displayed only if **Printer emulation:** CUSTOM TPT.

Note⁽⁶⁾: This parameter is displayed only if **Printer emulation:** ESC/POS™.

2.4 Hexadecimal dump

This function is used to diagnose the characters received through the communication port; for every 8 characters received, the hexadecimal and corresponding ASCII codes are printed out. Shown below is an example of a Hexadecimal Dump:

HEXADECIMAL DUMP															
31	32	33	34	35	36	37	38	12345678							
39	30	31	32	33	34	35	36	90123456							
37	38	39	75	69	73	64	66	789uisdf							
68	6B	6A	73	64	68	66	68	hkjsdhfh							
73	64	66	6B	6A	68	73	64	sdfkjhsd							
66	73	64	66	6B	68	6A	77	fsdfkhjw							
65	69	6F	79	75	77	71	65	eioyuwqe							
6F	72	69	75	77	65	72	69	oriuweri							
6F	75	77	65	72	69	6F	75	ouweriou							
77	65	72	69	6F	75	77	65	weriouwe							
72	69	6F	75	77	65	72	68	riouwerh							
6B	6C	73	64	66	68	6B	73	kl sdfhks							
64	66	6B	73	64	66	68	6A	dfksdfhj							
73	64	66	6B	6A	F2	73	64	sdfkj>sd							
66	6B	F2	6A	73	68	64	66	fk>jshdf							
6A	6B	6C	68	jklh											

2.5 Maintenance

**WARNING**

Make sure no water or other liquids seep inside the printer.

**BEWARE**

Before any type of work is done on the machine, disconnect the power supply cord from the mains outlet.

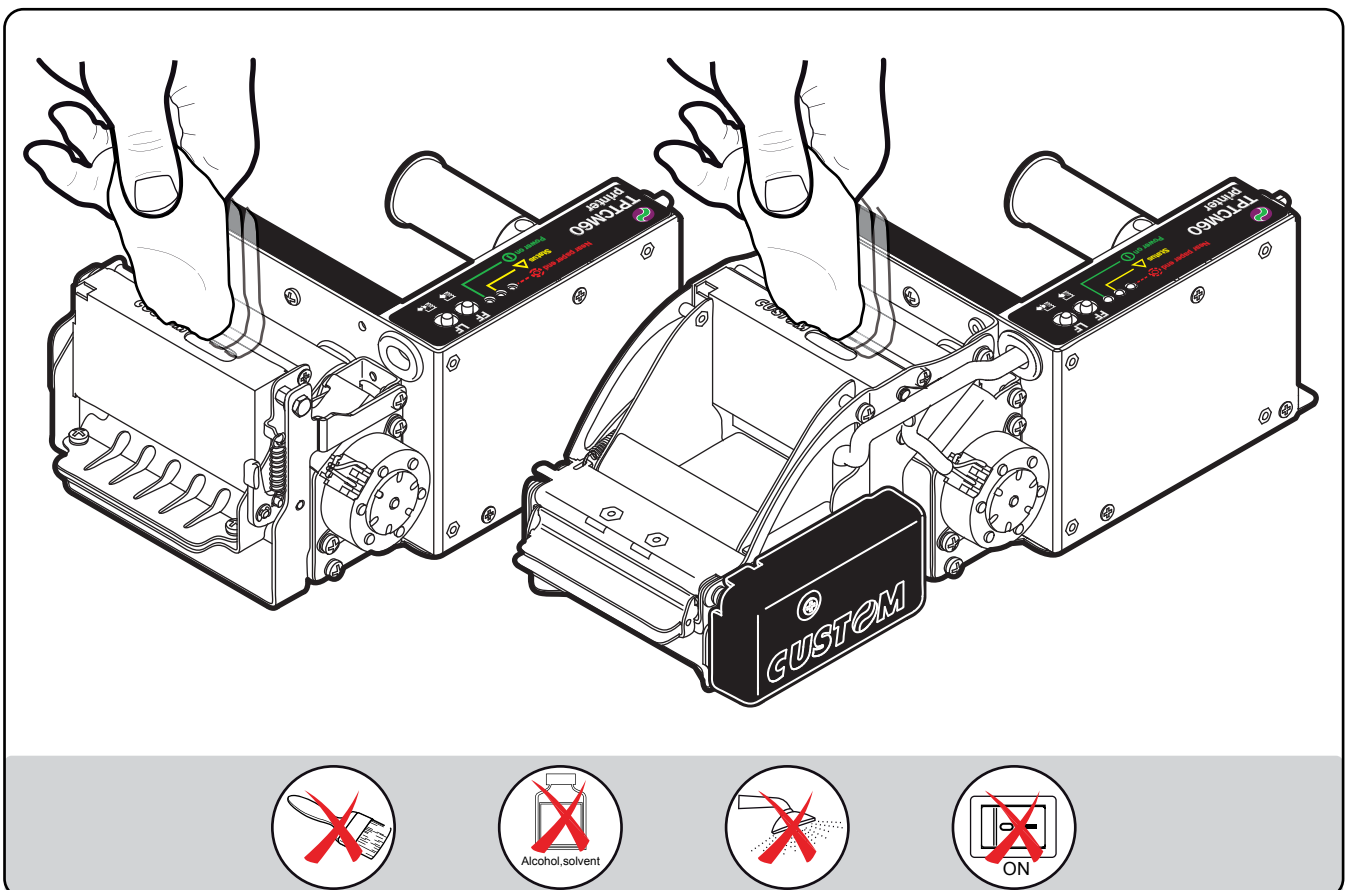
**ATTENTION**

Do not touch the head heating line with bare hands or metal objects. Do not perform any operation inside the printer immediately after printing because the head and motor tend to become very hot.

2.5.1 External cleaning

CASE

The user is responsible for cleaning the printer case. To clean the unit, use compressed air or a soft cloth. Do not use alcohol, solvents or stiff brushes.



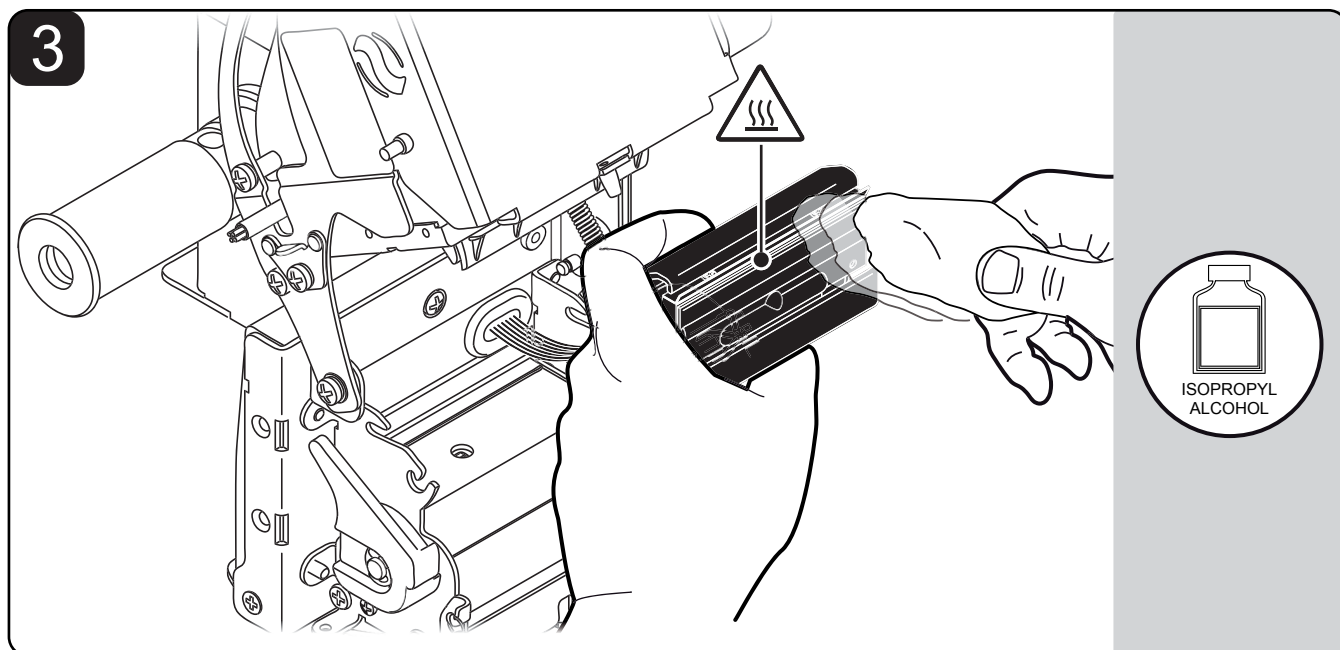
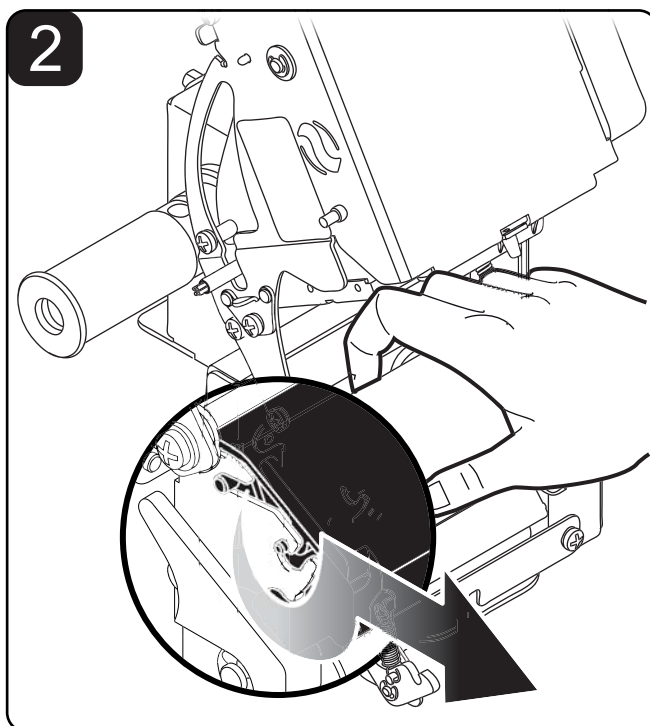
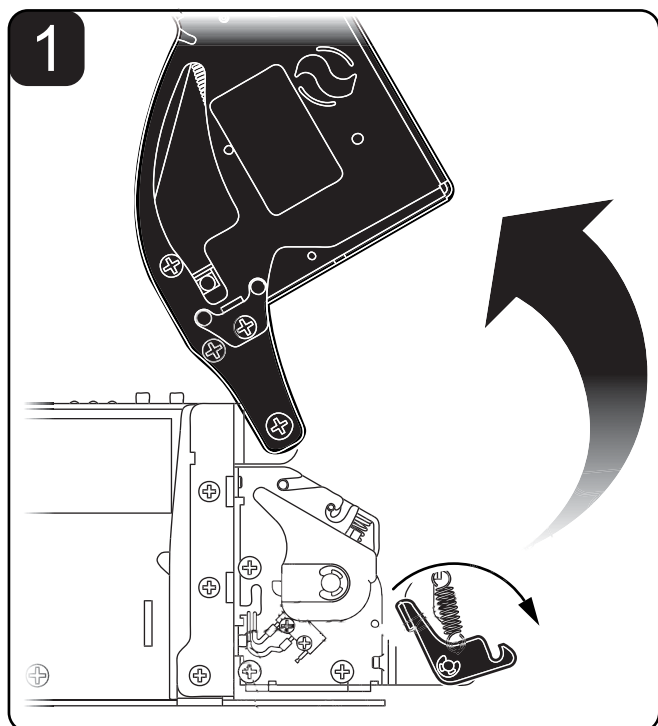
2.5.2 Cleaning the print head (only TPTCM60II-UE)

To open the printer proceed as follow:

1. Turn down the unblocking lever and lift up the ejector unit to the maximum opening position.
2. Unblock the printing mechanism as shown (see Figure).
3. Clean the printing head heating line using a non-abrasive cloth moistened with isopropyl alcohol.

ATTENTION!

DO NOT TOUCH THE HEAD HEATING LINE WITH BARE HANDS OR METAL OBJECTS. DO NOT PERFORM ANY OPERATION INSIDE THE PRINTER IMMEDIATELY AFTER PRINTING BECAUSE THE HEAD AND MOTOR TEND TO BECOME VERY HOT.



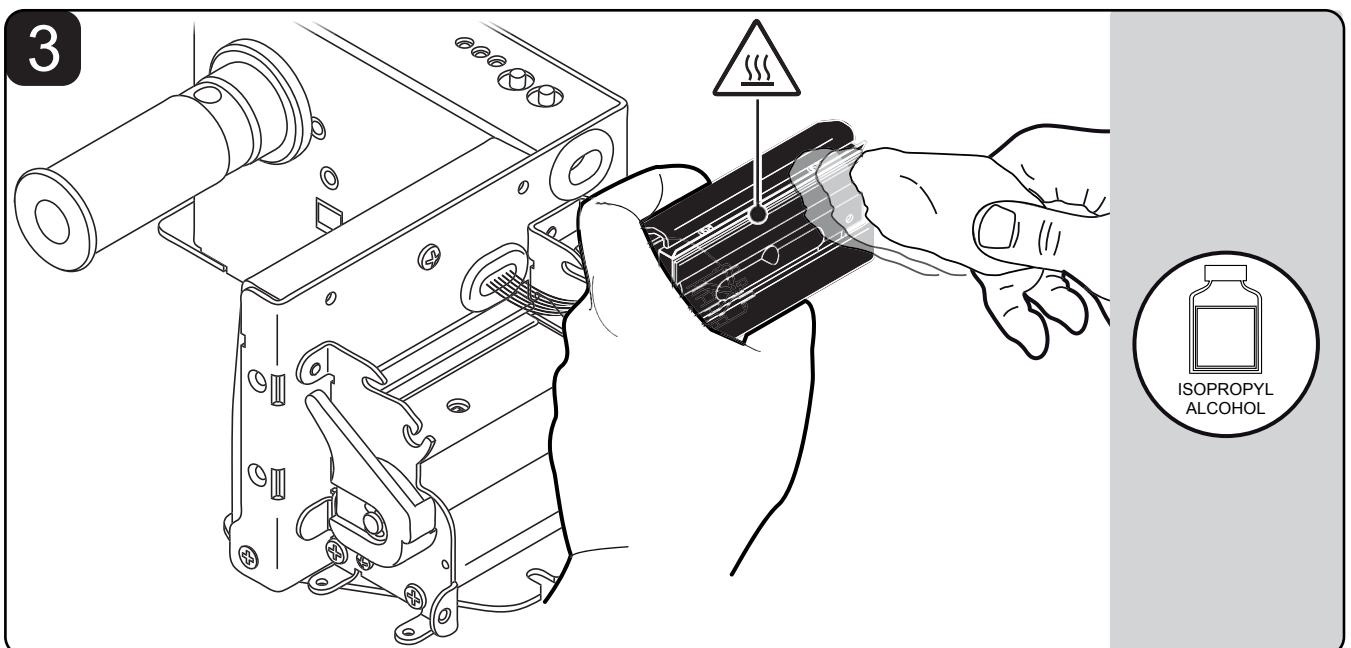
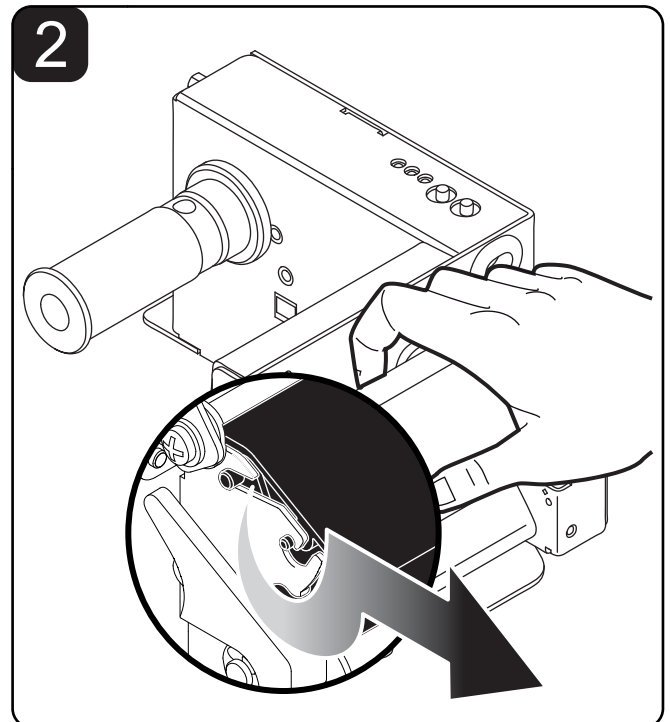
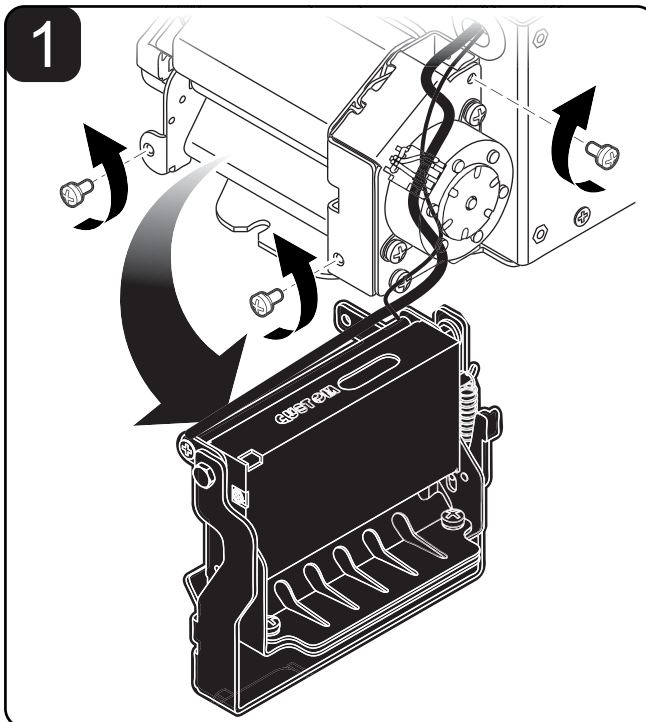
2.5.3 Cleaning the print head (only TPTCM60II-UC, TPTCM60II-UC-0145)

To open the printer proceed as follow:

1. Unscrew the 3 fixing screws and remove the cutter unit.
2. Unblock the printing mechanism as shown (see Figure).
3. Clean the printing head heating line using a non-abrasive cloth moistened with isopropyl alcohol.

ATTENTION!

DO NOT TOUCH THE HEAD HEATING LINE WITH BARE HANDS OR METAL OBJECTS. DO NOT PERFORM ANY OPERATION INSIDE THE PRINTER IMMEDIATELY AFTER PRINTING BECAUSE THE HEAD AND MOTOR TEND TO BECOME VERY HOT.

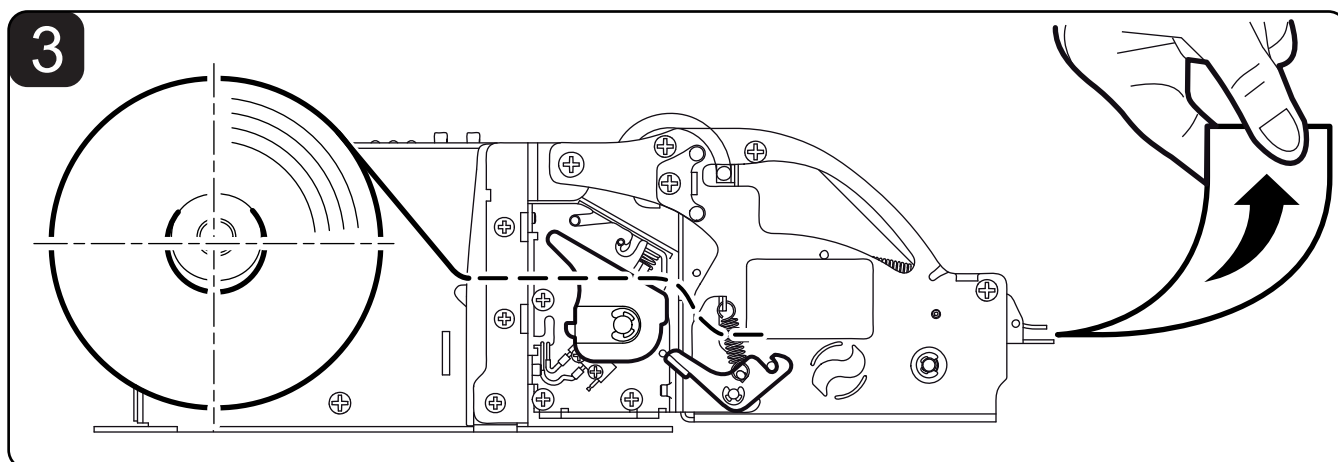
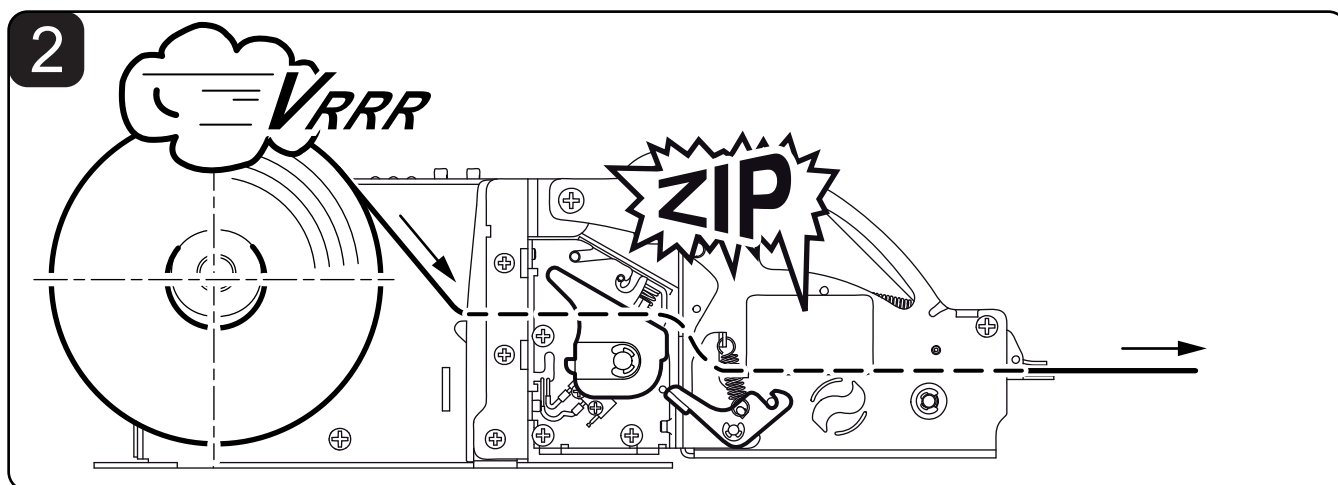
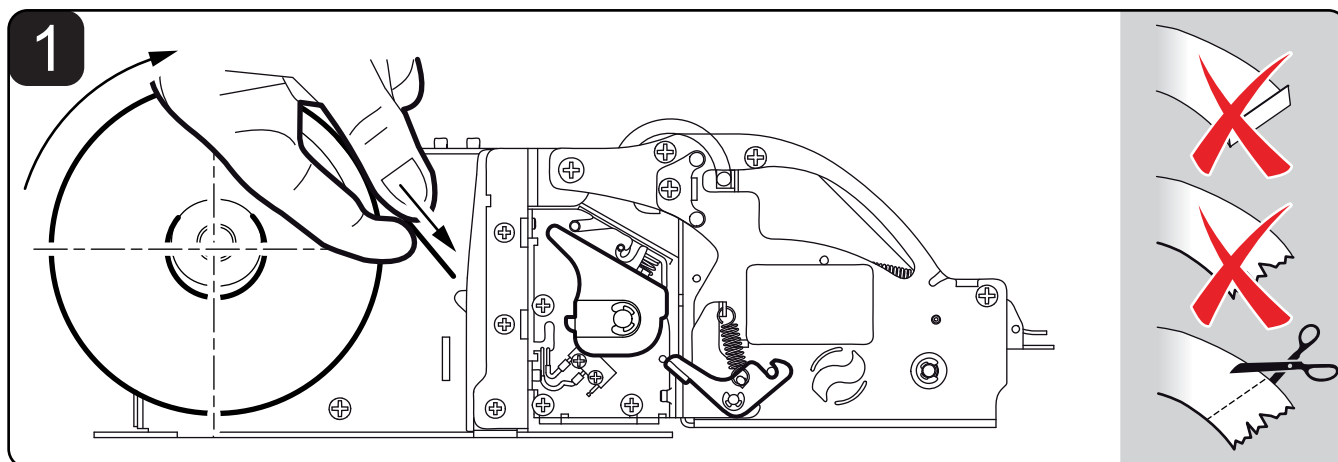


2.5.4 Changing the paper roll (only TPTCM60II-UE)

Depending on how the printer “Paper Autoload” parameter is set (see Chapter 2.3), one of two procedures must be followed:

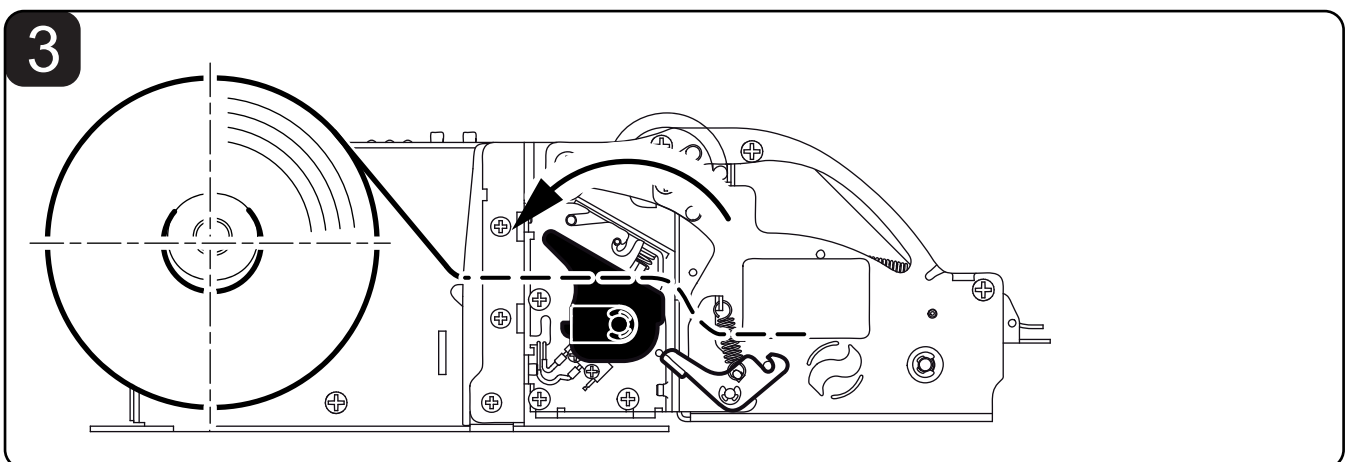
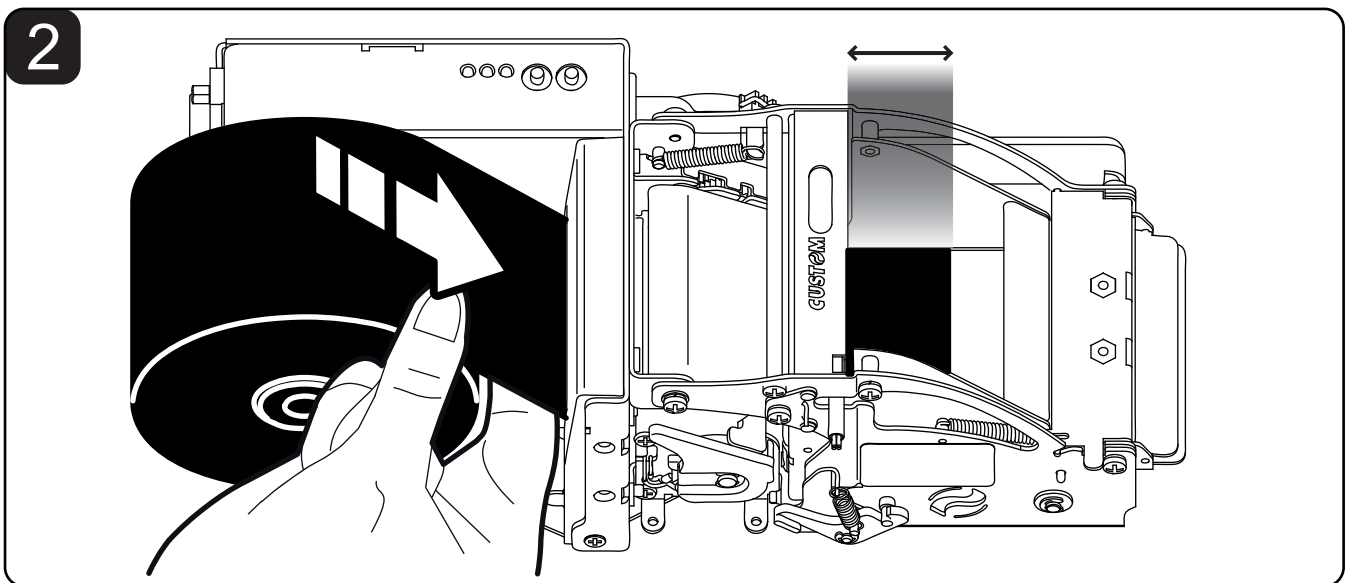
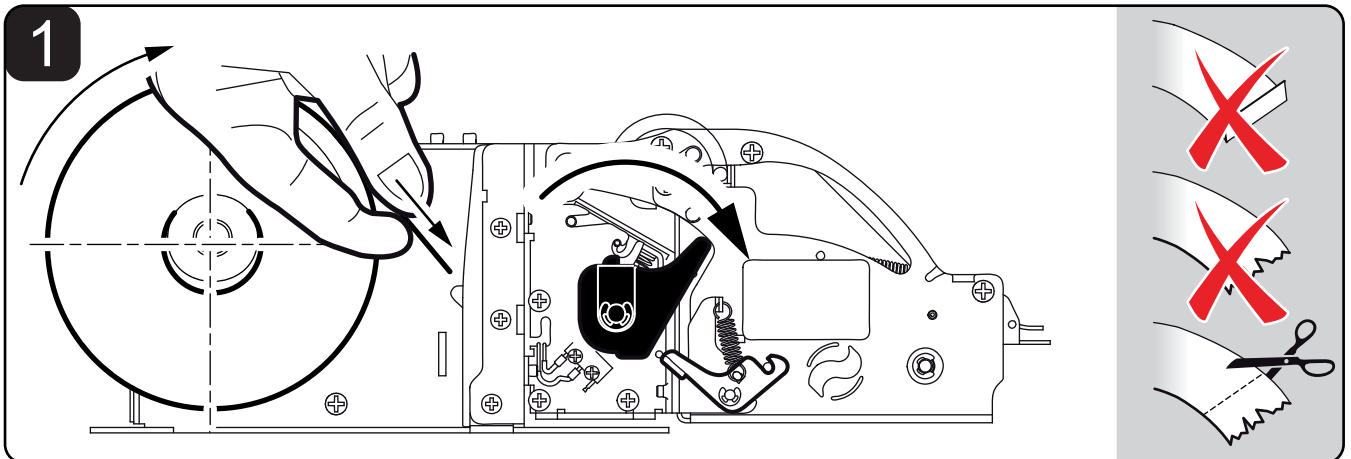
‘PAPER AUTOLOAD’ ENABLED:

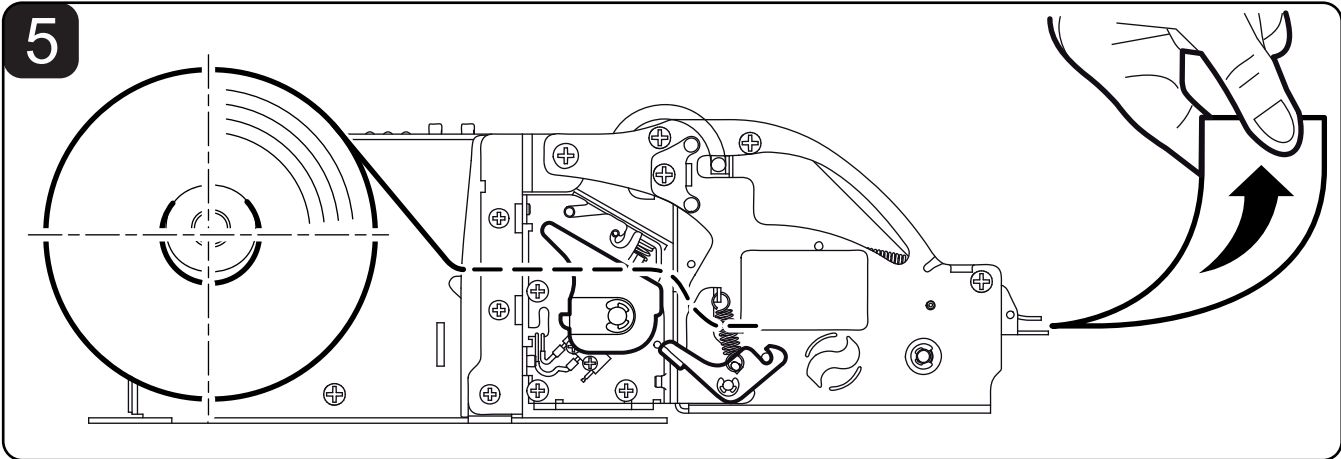
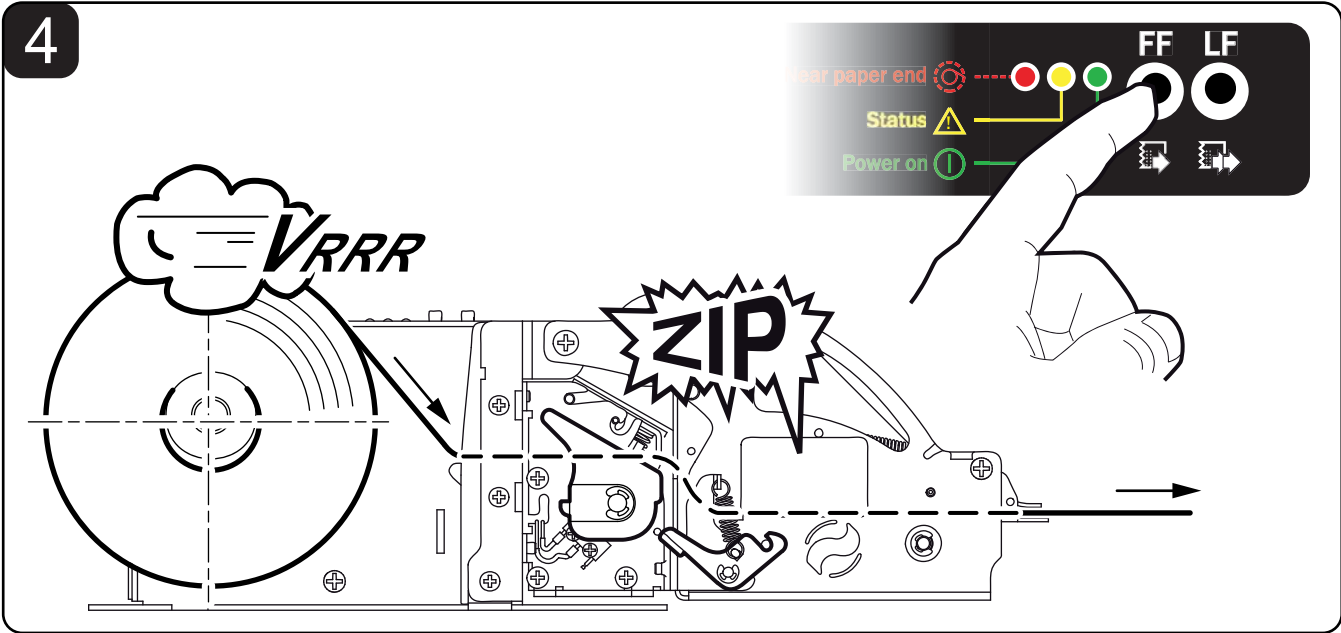
1. Position the paper roll, so that it unrolls correctly as shown (see Figure). Before inserting the paper, make sure the cut is straight.
2. Insert the paper into the infeed slot and wait for the roll to be loaded automatically and cut.
3. Remove the exceeding paper
4. The printer is ready.



'PAPER AUTOLOAD' DISABLED:

1. Position the paper roll, so that it unrolls correctly as shown (see Figure) and lift the print head by using the unblocking lever for print head (see Figure).
2. Insert the paper into the infeed slot and have it pass beyond the print head and the cutter (see Figure).
3. Lower the lever.
4. Press the FF FORM FEED key and wait for the roll to be loaded automatically and cut.
5. Remove the exceeding paper
6. The printer is ready.

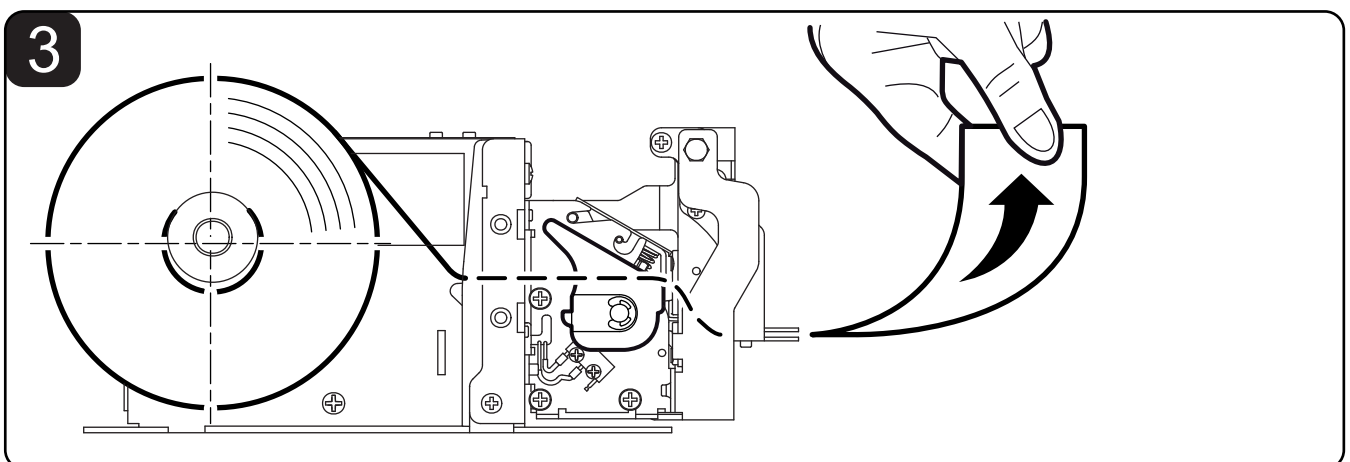
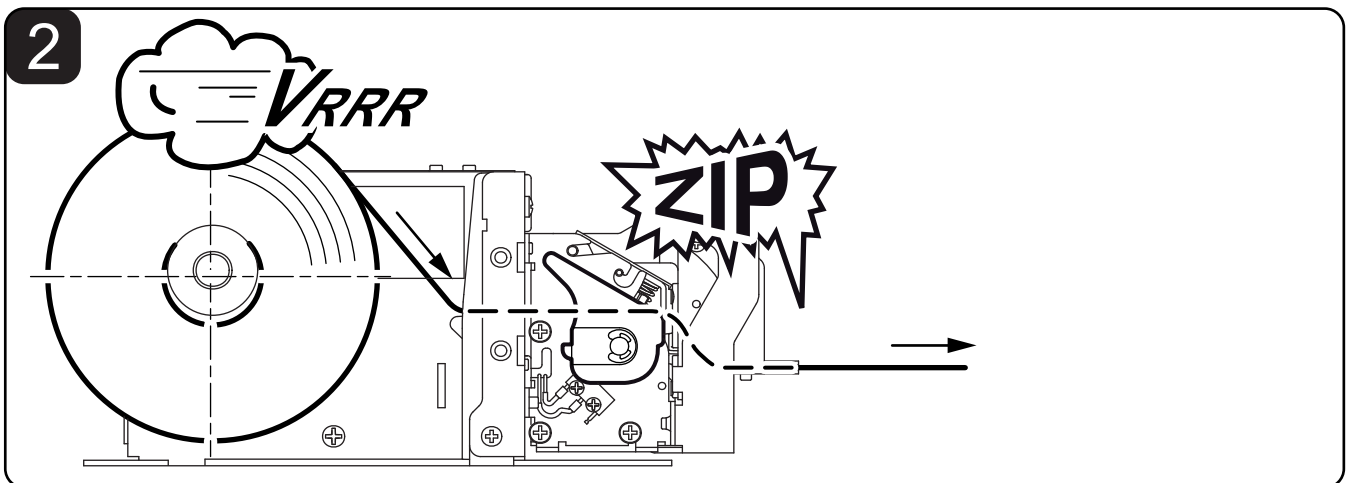
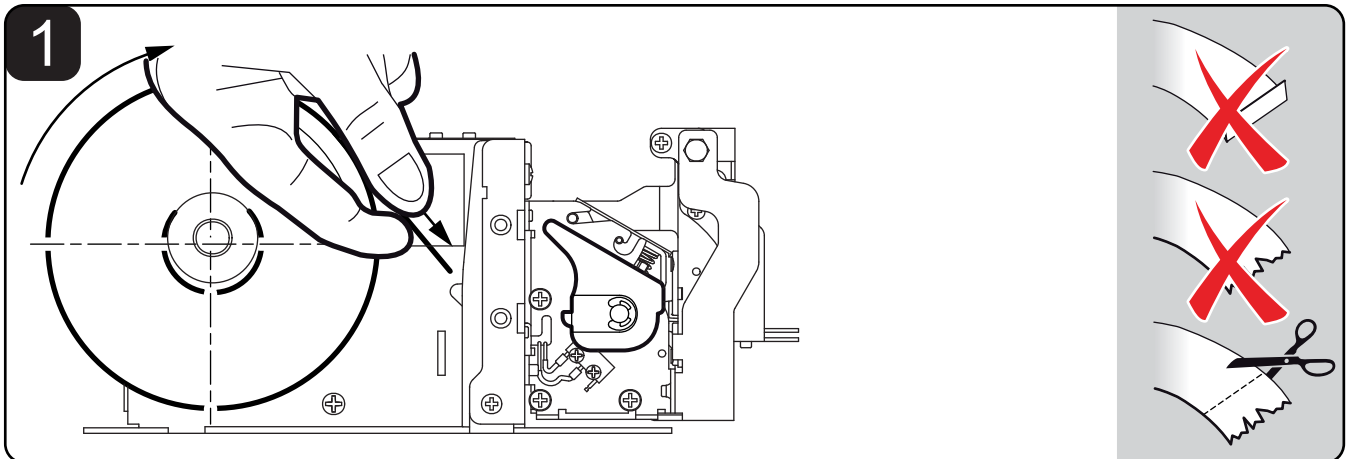




2.5.5 Changing the paper roll (only TPTCM60II-UC, TPTCM60II-UC-0145)

'PAPER AUTOLOAD' ENABLED:

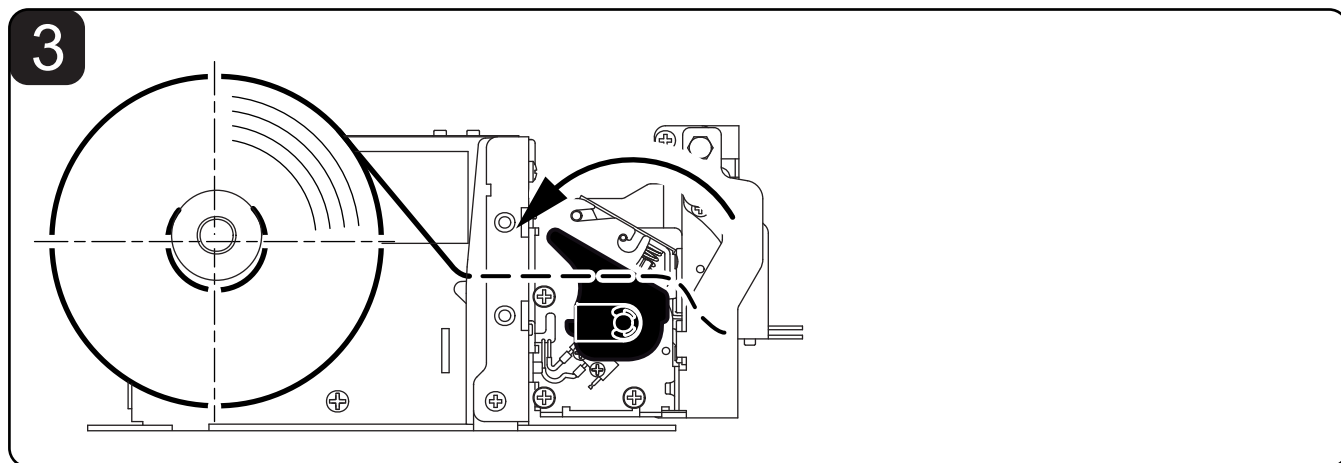
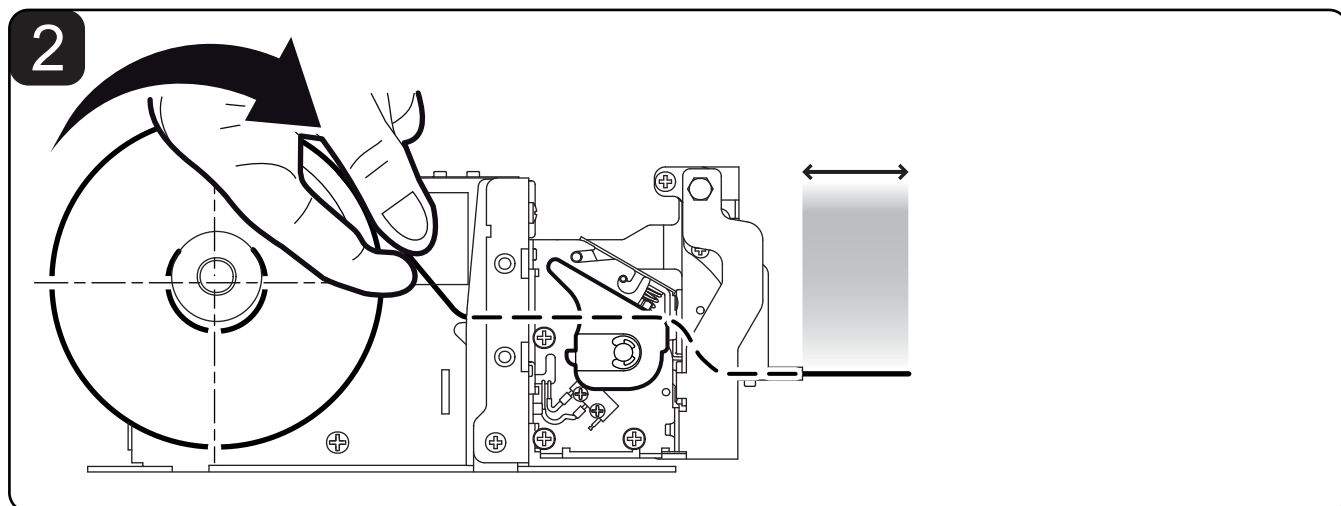
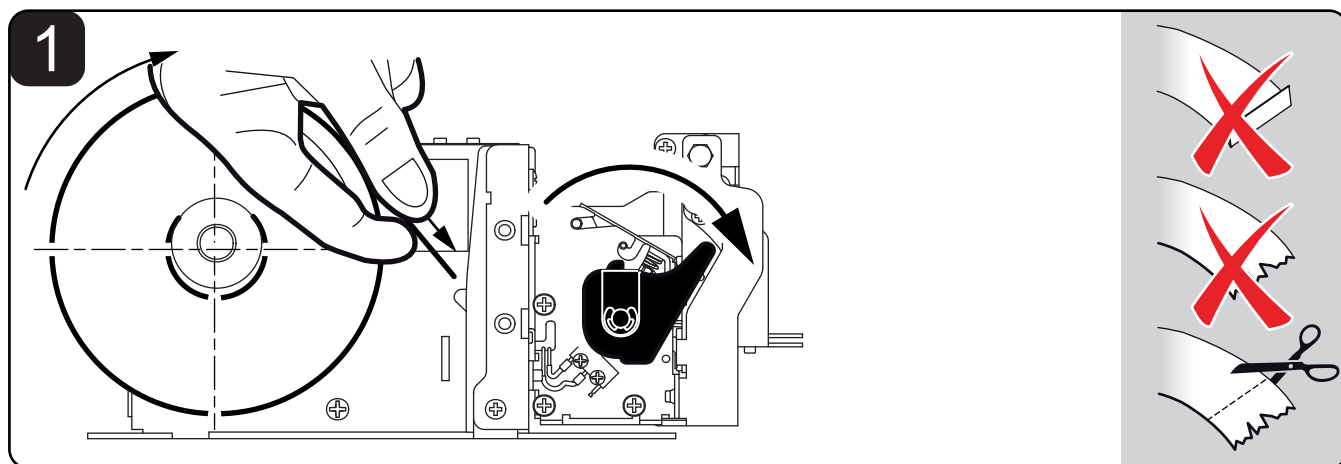
1. Position the paper roll, so that it unrolls correctly as shown (see Figure). Before inserting the paper, make sure the cut is straight.
2. Insert the paper into the infeed slot and wait for the roll to be loaded automatically and cut.
3. Remove the exceeding paper
4. The printer is ready.



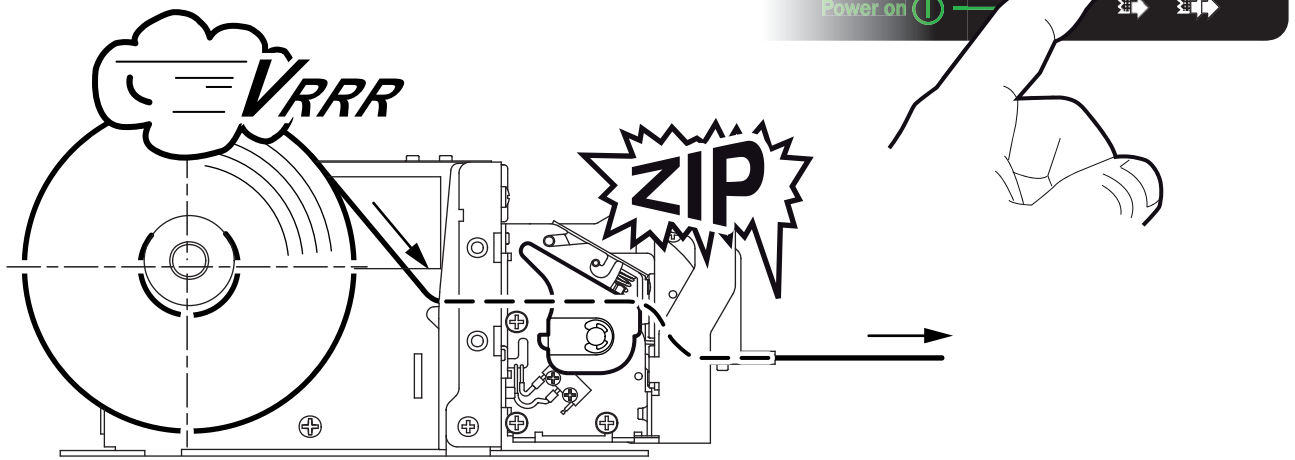
2. INSTALLATION AND USE

'PAPER AUTOLOAD' DISABLED:

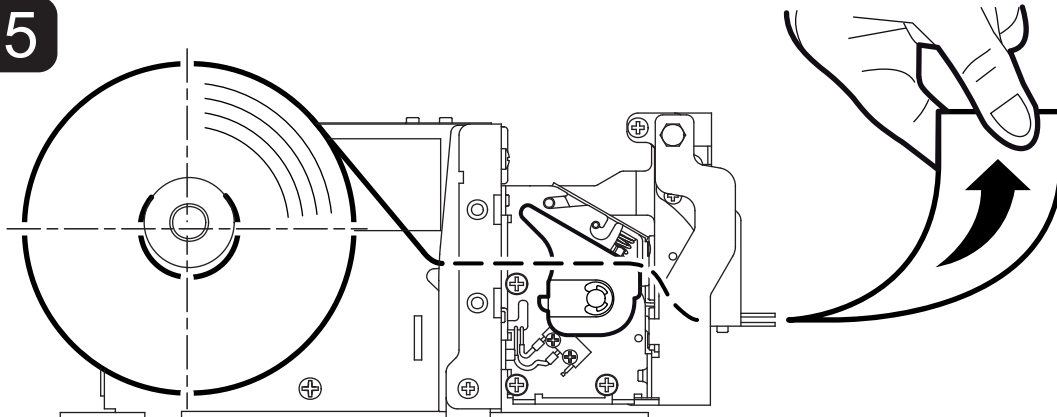
1. Position the paper roll, so that it unrolls correctly as shown (see Figure) and lift the print head by using the unblocking lever for print head (see Figure).
2. Insert the paper into the infeed slot and have it pass beyond the print head and the cutter (see Figure).
3. Lower the lever.
4. Press the FF FORM FEED key and wait for the roll to be loaded automatically and cut.
5. Remove the exceeding paper
6. The printer is ready.



4



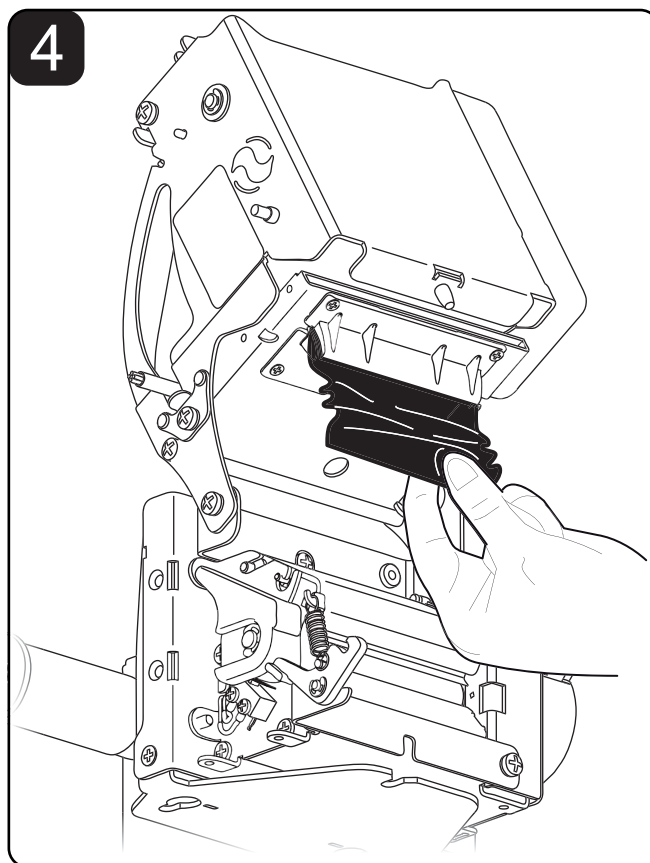
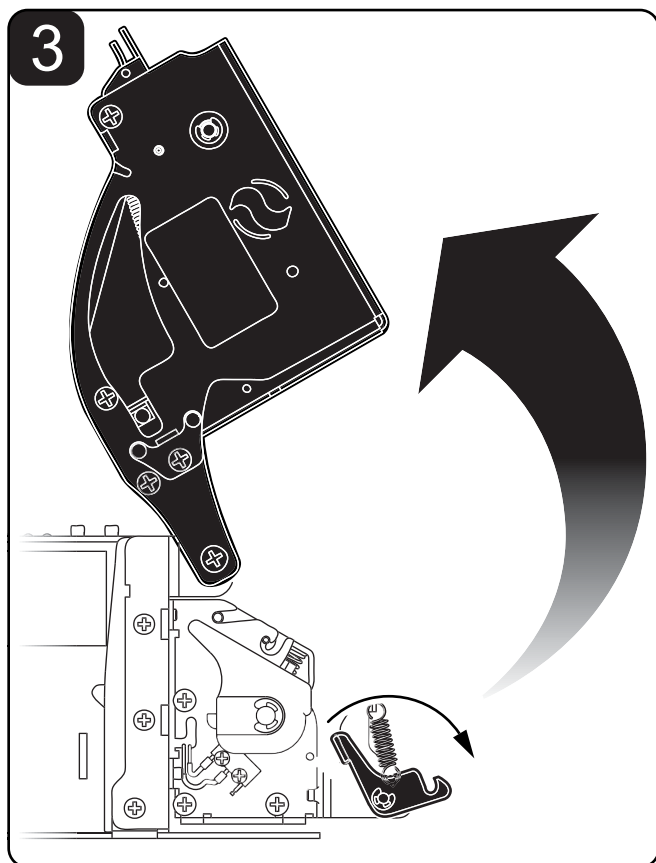
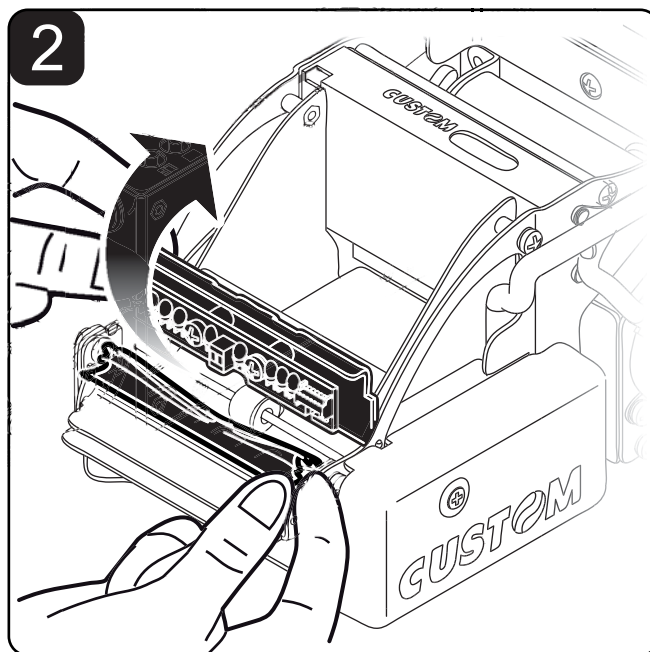
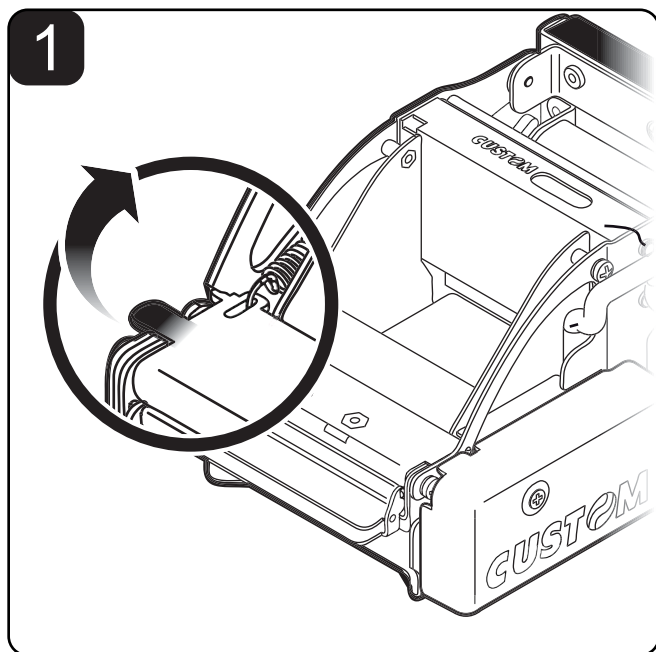
5

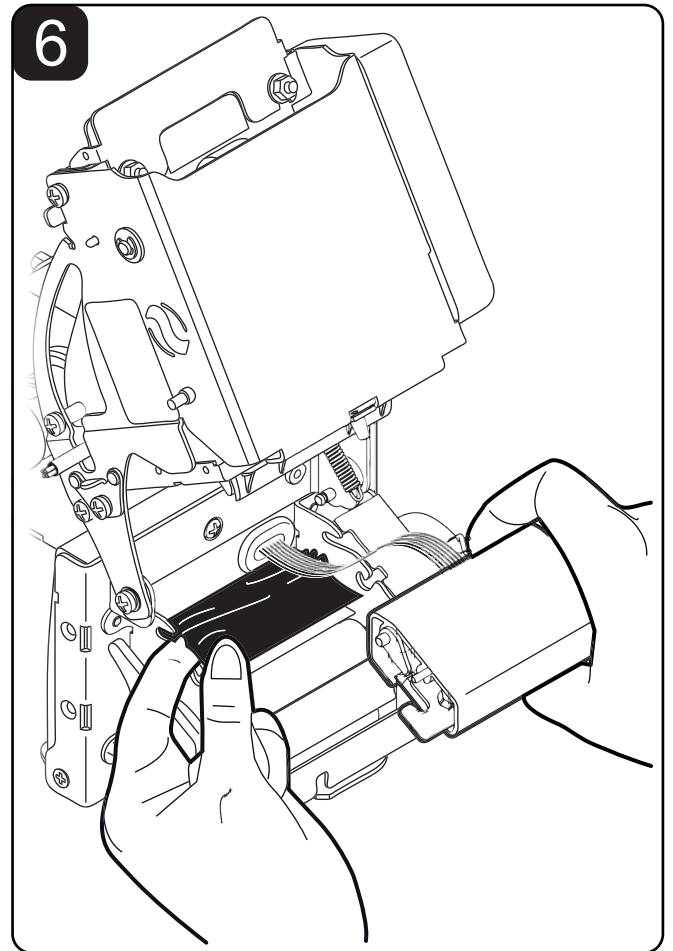
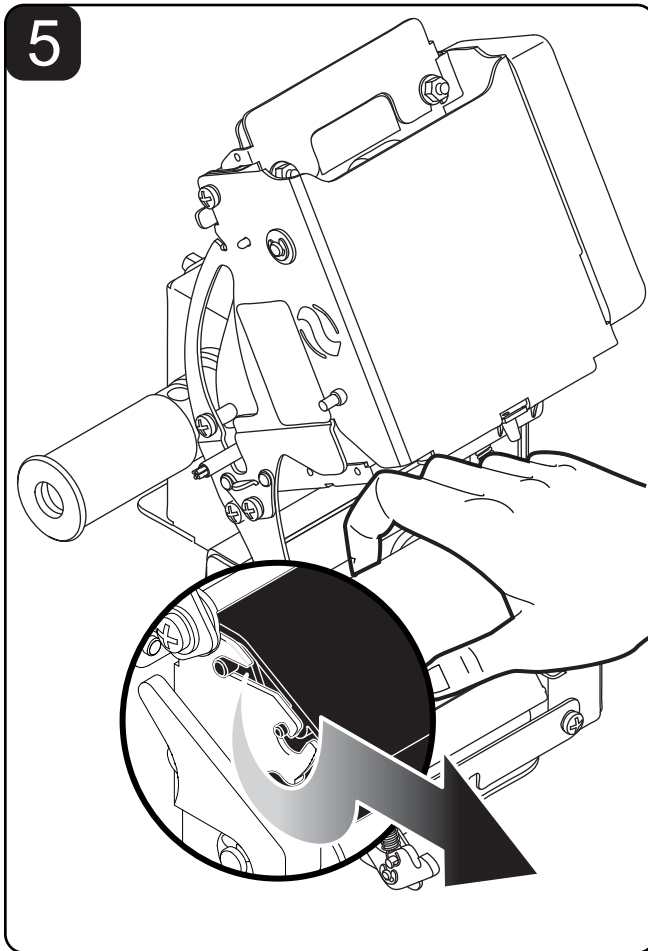


2.5.6 Paper jam (only TPTCM60II-UE)

To open the printer proceed as follow:

1. Lift up the inspection door using the prong on the left side.
2. Remove possible scraps of paper.
3. Turn down the unblocking lever and lift up the ejector unit to the maximum opening position.
4. Remove possible scraps of paper behind the ejector.
5. Unblock the printing mechanism as shown (see Figure).
6. Remove possible scraps of paper near the cutter and under printing mechanism.

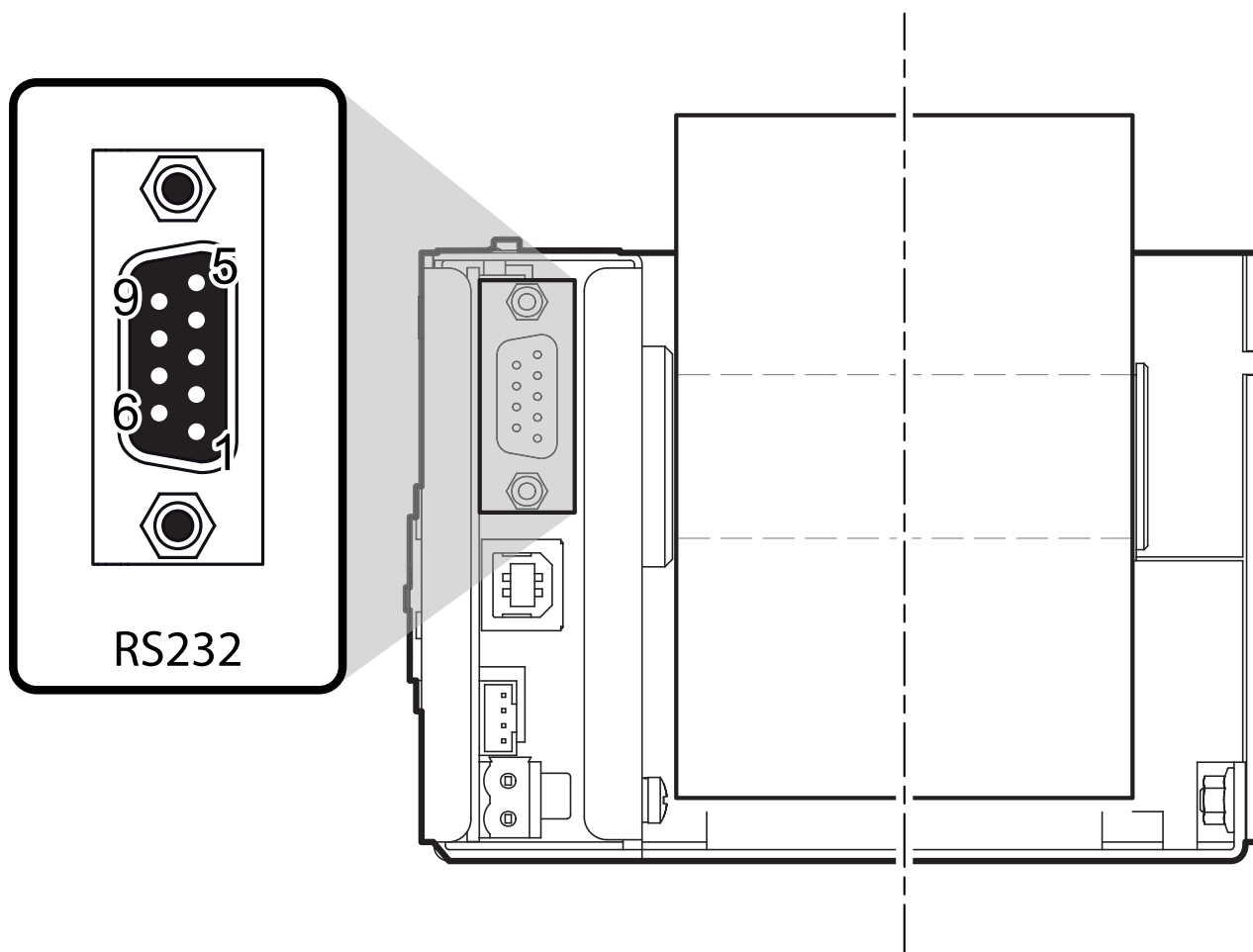




3 INTERFACE

3.1 RS232 serial interface

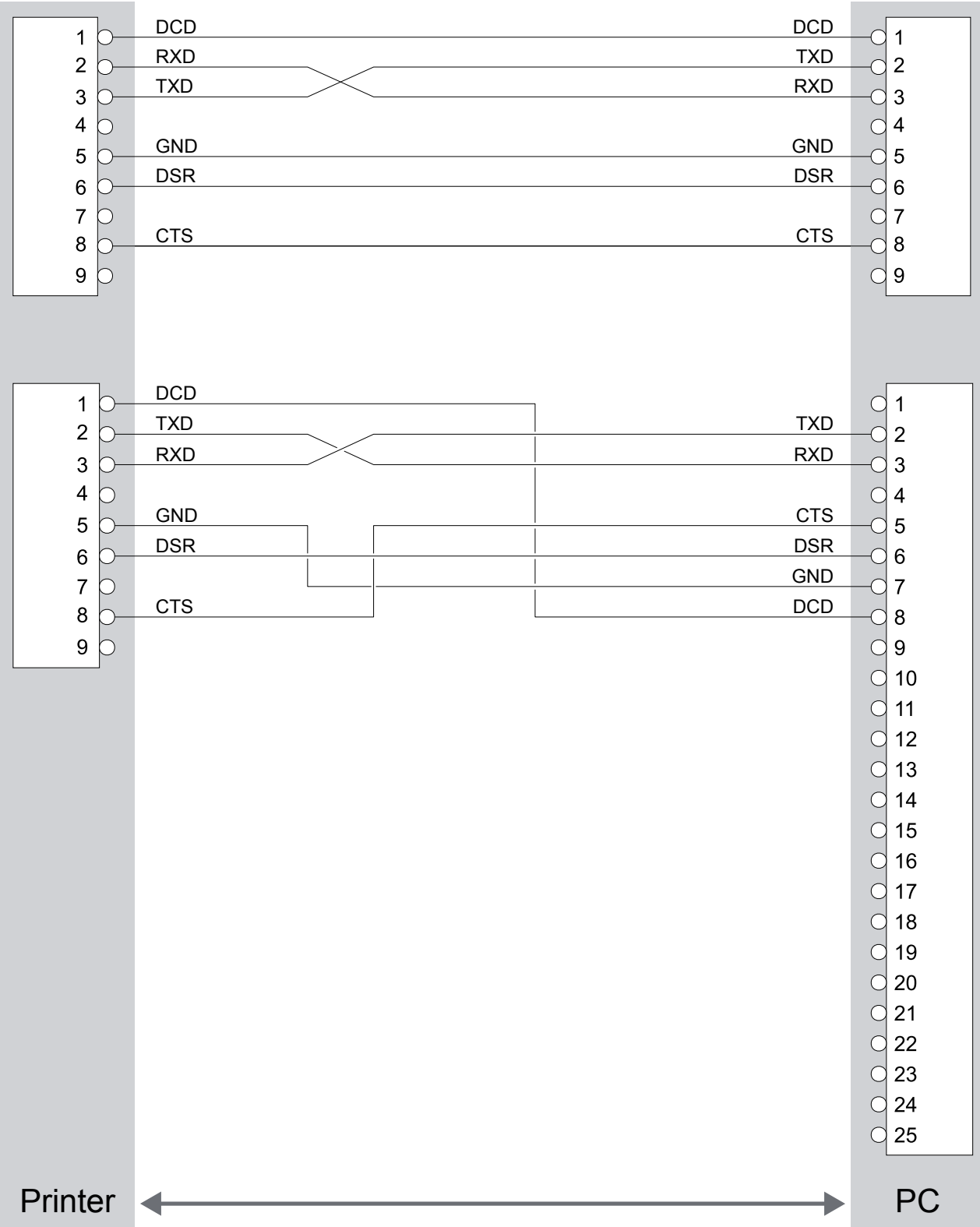
The printer has an RS232 serial interface and is connected by means of a 9 pin female connector (see Figure). In the following table, the signals present on the connector are listed:



PIN	SIGNAL	IN / OUT	DESCRIPTION
1	DCD	OUT	Data Carrier detect. Printer ON (active at level RS232 high)
2	TXD	OUT	Transmit data. Serial output (from Host)
3	RXD	IN	Receive data. Serial data input (towards Host)
4	N.C.	-	Not connected
5	GND	-	Ground signal
6	DSR	OUT	Data Set Ready. Printer on and operating (active at RS232 level high)
7	N.C.	-	Not connected
8	RTS	OUT	Clear to send. Ready to receive data (active at RS232 high level)
9	N.C.	-	Not connected

3. INTERFACE

The following diagrams show examples of connections between the printer and the Personal Computer using 25 and 9 pin female connectors.



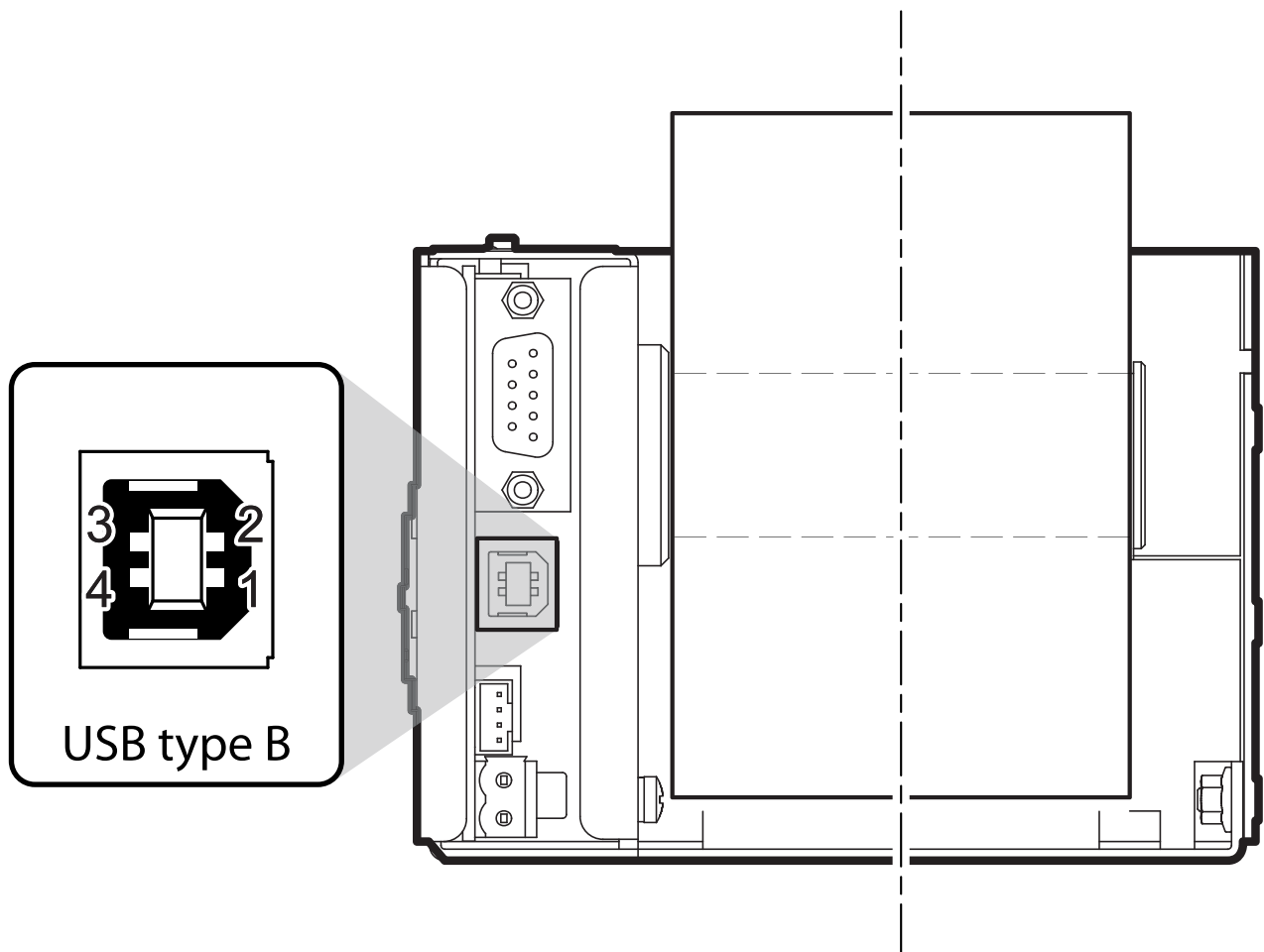
ATTENTION
Using a serial cable it's better to install a ferrite at the end of the same cable.

3.2 USB Interface

The printer with USB interface complies to USB 1.1 specifications with the following specifications:

- Communication speed equal to 12 Mbit/sec.
- Type of connector “Receptacle series B”.

Refer to the table below for the connector pin signals:



PIN	SIGNAL	DESCRIPTION
1	VBUS	N.C.
2	D-	Data -
3	D+	Data +
4	GND	Ground Signal
Shell	Shield	Cable shielding



NOTE: If serial and USB connectors are inserted, communication port is USB

4 TECHNICAL SPECIFICATIONS

Table below gives the main technical specifications for the printer.

GENERAL	
Available interfaces	Serial RS232 USB
Communication speed	(serial RS232) from 1200 to 57600 bps (USB) 1.1
Sensors	Head temperature, near paper end, paper unblocked, paper in presence, paper out presence OPTIONAL: Near paper end (on paper roll holder support)
Printing driver	Window™ 2K, XP, Vista (32 and 64 bit), 7 (32 and 64 bit)
Receive buffer	16 Kbytes
Flash memory	256 Kbytes
Emulation	ESC/POS™, CUSTOM TPT
PRINTER SPECIFICATIONS	
Print method	Thermal, fixed head (8 dot/mm)
Resolution	203 DPI (8 dot/mm)
Printing speed	140 mm/sec
Printing mode	Straight, 90°, 180°, 360°
Printing format	Normal, height / width from 1x, 2x, 4x, bold, reverse, underlined, italic
Character fonts	PC437, PC850, PC860, PC863, PC865, PC858 (euro) Optional: GB2312 (Simplified Chinese font)
Graphics memory	6 Logos (448 x 292 dots)
PAPER SPECIFICATIONS	
Type of paper	Thermal rolls Heat-sensitive side on outside of roll
Recommended types	from 60 gr/m ² to 90 gr/m ² (KANZAN KF50 and KP460, MITSUBISHI PG5075 and TL4000)
Paper width	60 ± 0,5 mm
Paper thickness	from 0,063 to 0,080 mm
External roll diameter	(Without paper roll holder support) MAX Ø90 mm (With paper roll holder support) MAX Ø160 mm

4. TECHNICAL SPECIFICATIONS

Core type	Cardboard or plastic
Internal roll core diameter	Ø25 ± 1 mm
Paper end	Not attached to roll core

ELECTRICAL SPECIFICATIONS

Power Supply	24 Vdc ± 10%
Absorptions	
Stand by	0.07 A
Average ⁽¹⁾	1.1 A

ENVIRONMENTAL CONDITIONS

Operating temperature	0-50°C
Relative humidity	10-85% Rh
Storage temperature / Humidity	-20 °C – 70 °C / 10% - 90% Rh

MECHANICAL SPECIFICATIONS

Length	(TPTCM60II-UE) 266 mm (TPTCM60II-UC, TPTCM60II-UC-0145) 195 mm
Width	(TPTCM60II-UE) 115 mm (TPTCM60II-UC, TPTCM60II-UC-0145) 112 mm
Height	(TPTCM60II-UE) 85 mm (TPTCM60II-UC, TPTCM60II-UC-0145) 83 mm
Weight ⁽²⁾	(TPTCM60II-UE) 1500 gr (TPTCM60II-UC, TPTCM60II-UC-0145) 1150 gr

(1) Standard CUSTOM receipt (L=10cm, Density = 12,5% dots on).
(2) Without paper roll.

4.1 Character Specifications

ESC/POS™ EMULATION

Number of columns	32	42	56
PRINTING SPEED			
Lines / sec	18.3	18.3	18.3
Characters / sec	586	770	1026
CHARACTER (W x H mm)			
Normal	1.7 x 3	1.2 x 3	1 x 3
Double height	3.4 x 3	2.4 x 3	2 x 3
Double width	1.7 x 6	1.2 x 6	1 x 6
Double height and width	3.4 x 6	2.4 x 6	2 x 6
Quadruple height	6.8 x 3	4.8 x 3	4 x 3
Quadruple width	1.7 x 12	1.7 x 12	1 x 12
Quadruple height and width	6.8 x 12	4.8 x 12	4 x 12

CUSTOM TPT EMULATION

Number of columns	18	28	56
PRINTING SPEED			
Lines / sec	13.7	18.3	27.5
Characters / sec	248	513	1540
CHARACTER (W x H mm)			
Normal	3 x 4	2 x 3	1 x 2
Double height	6 x 4	4 x 3	2 x 2
Double width	3 x 8	2 x 6	1 x 1
Double height and width	6 x 8	4 x 6	2 x 4
Quadruple height	12 x 4	8 x 3	4 x 2
Quadruple width	3 x 16	2 x 12	1 x 8
Quadruple height and width	12 x 16	8 x 12	4 x 8

4. TECHNICAL SPECIFICATIONS

4.2 Label dimension (only TPTCM60II-UC-0145)

To use correctly the alignment command it is necessary to use labels with the following dimensions (see figure):

$A \geq 2.5 \text{ mm}$

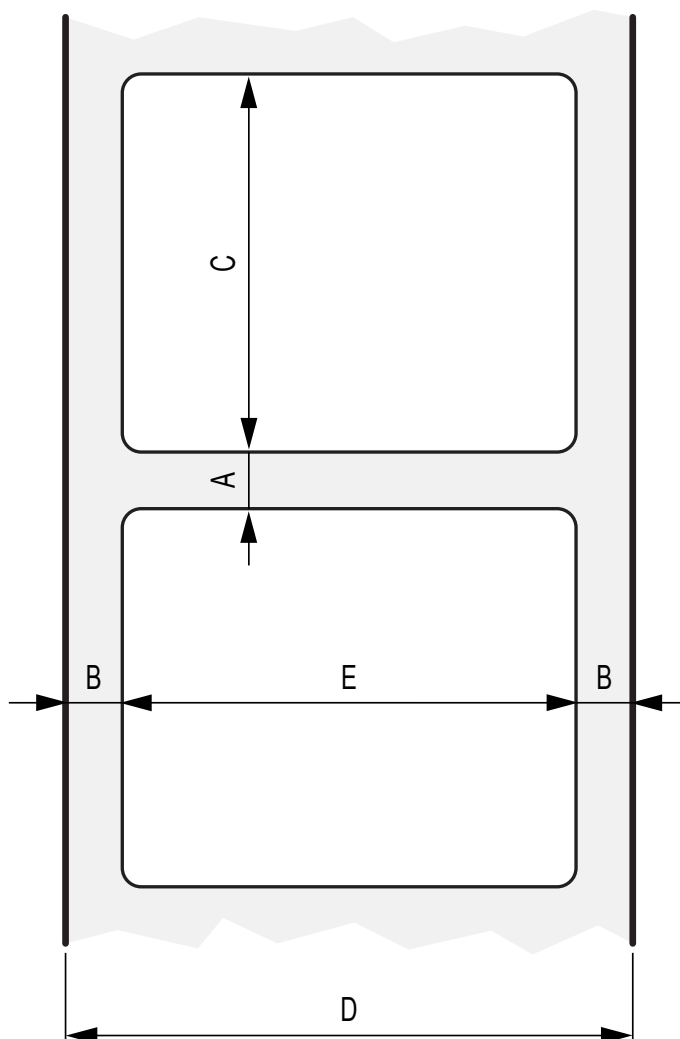
$B < 6 \text{ mm}$

$C = \text{max. } 250 \text{ mm}$

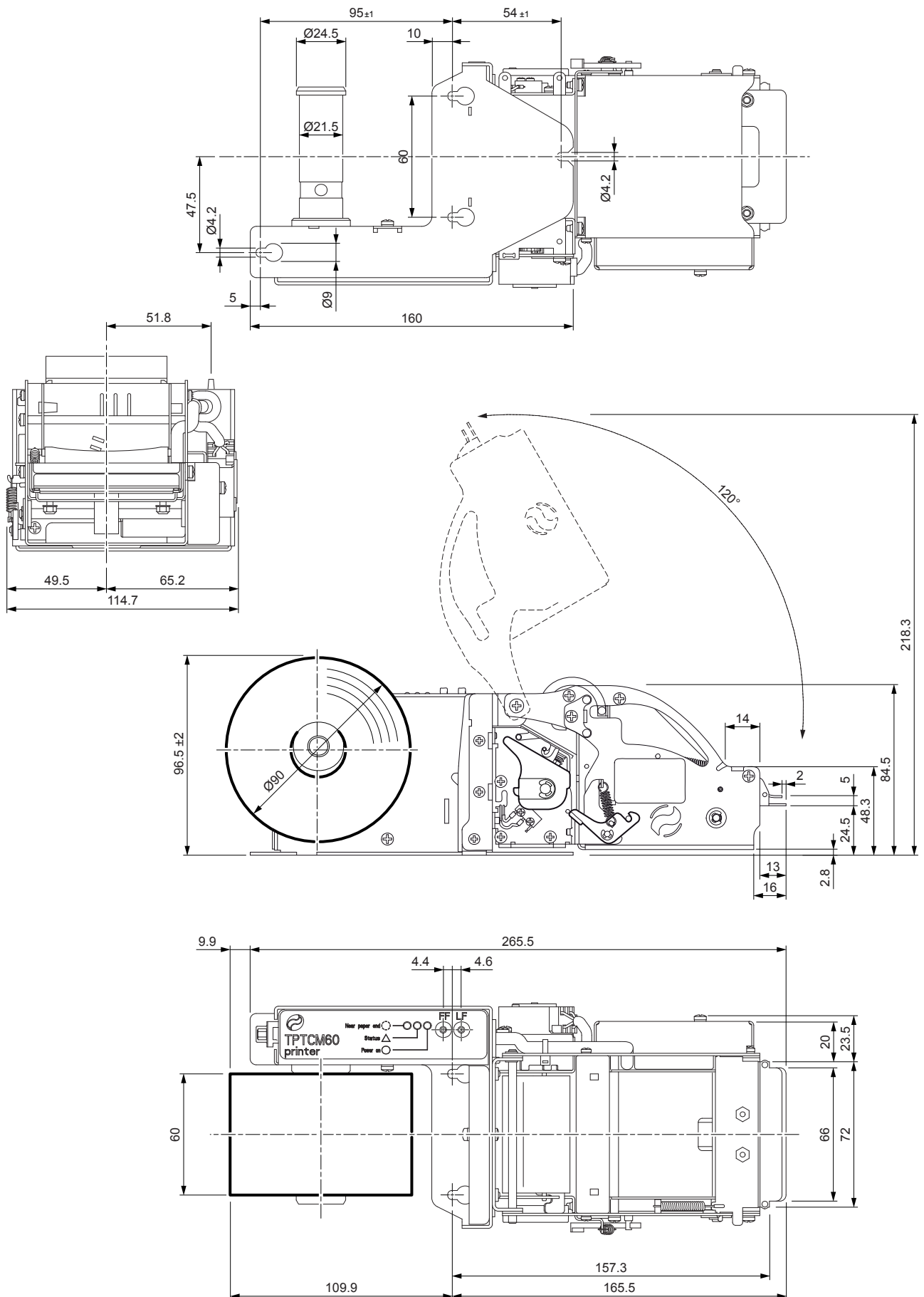
$D = 60 \text{ mm}$

$E \geq 50 \text{ mm}$ (if centered horizontally)

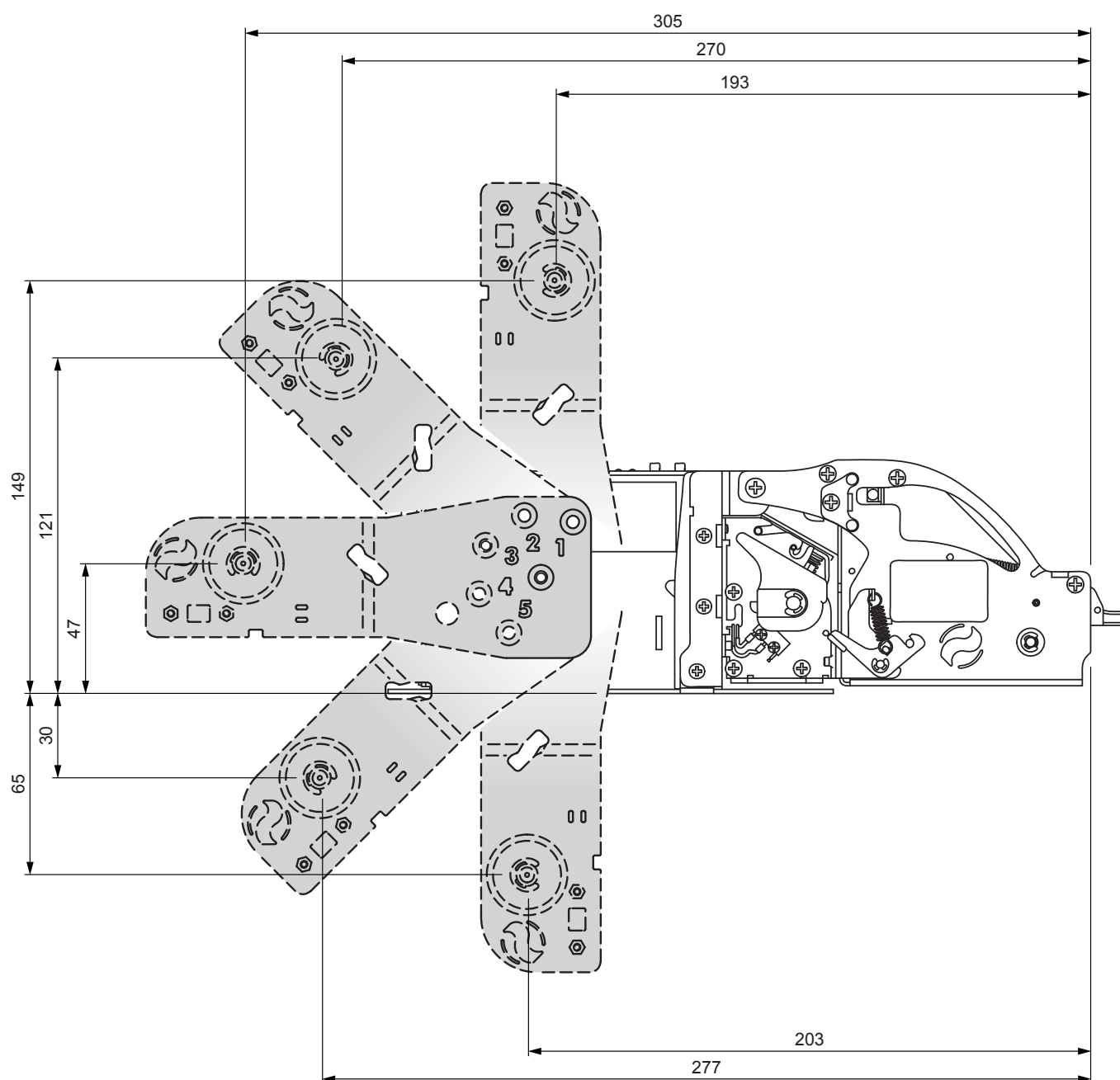
$A+C \geq 25,4 \text{ mm}$ (1 inch)



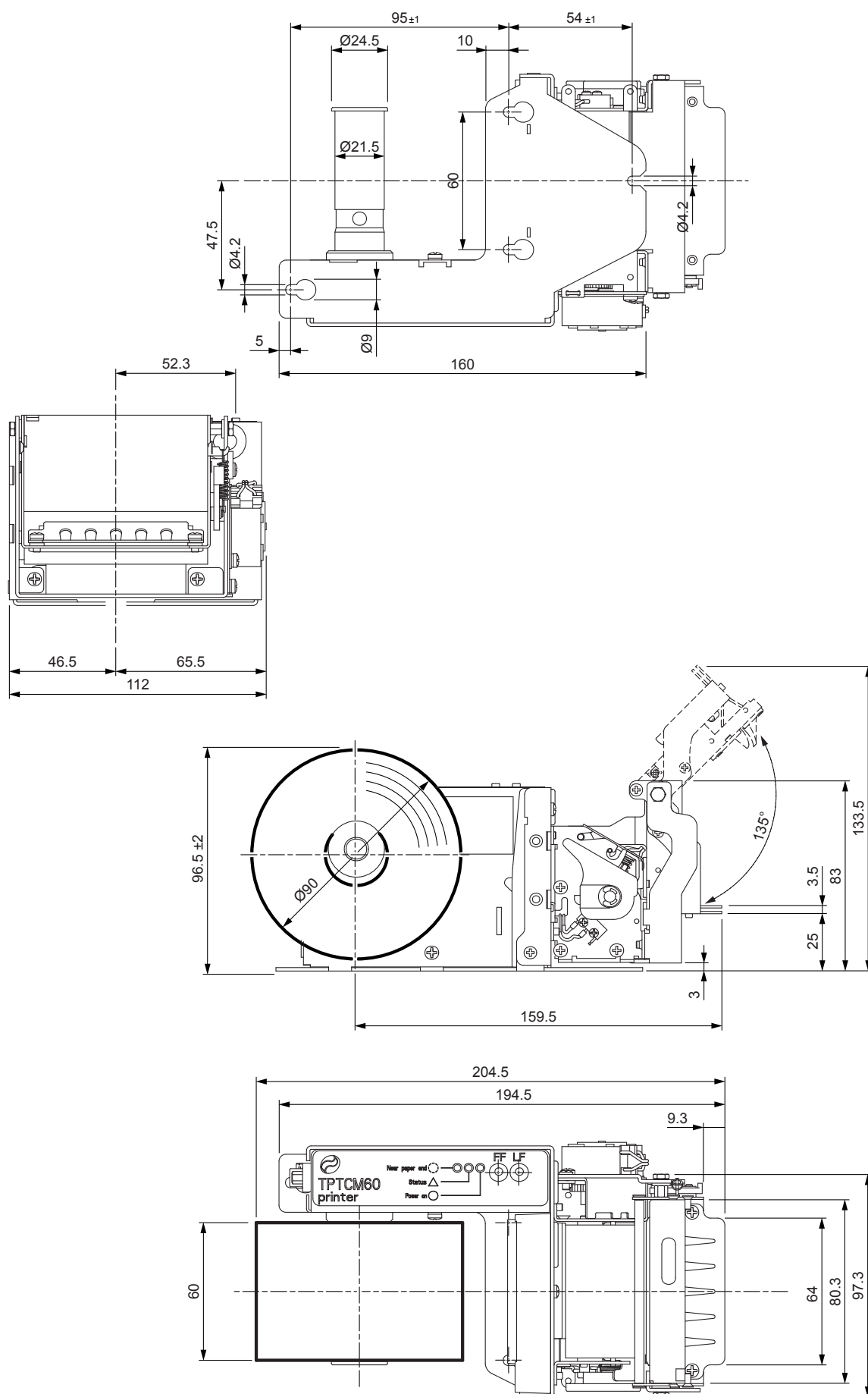
4.3 Printer dimensions (only TPTCM60II-UE)



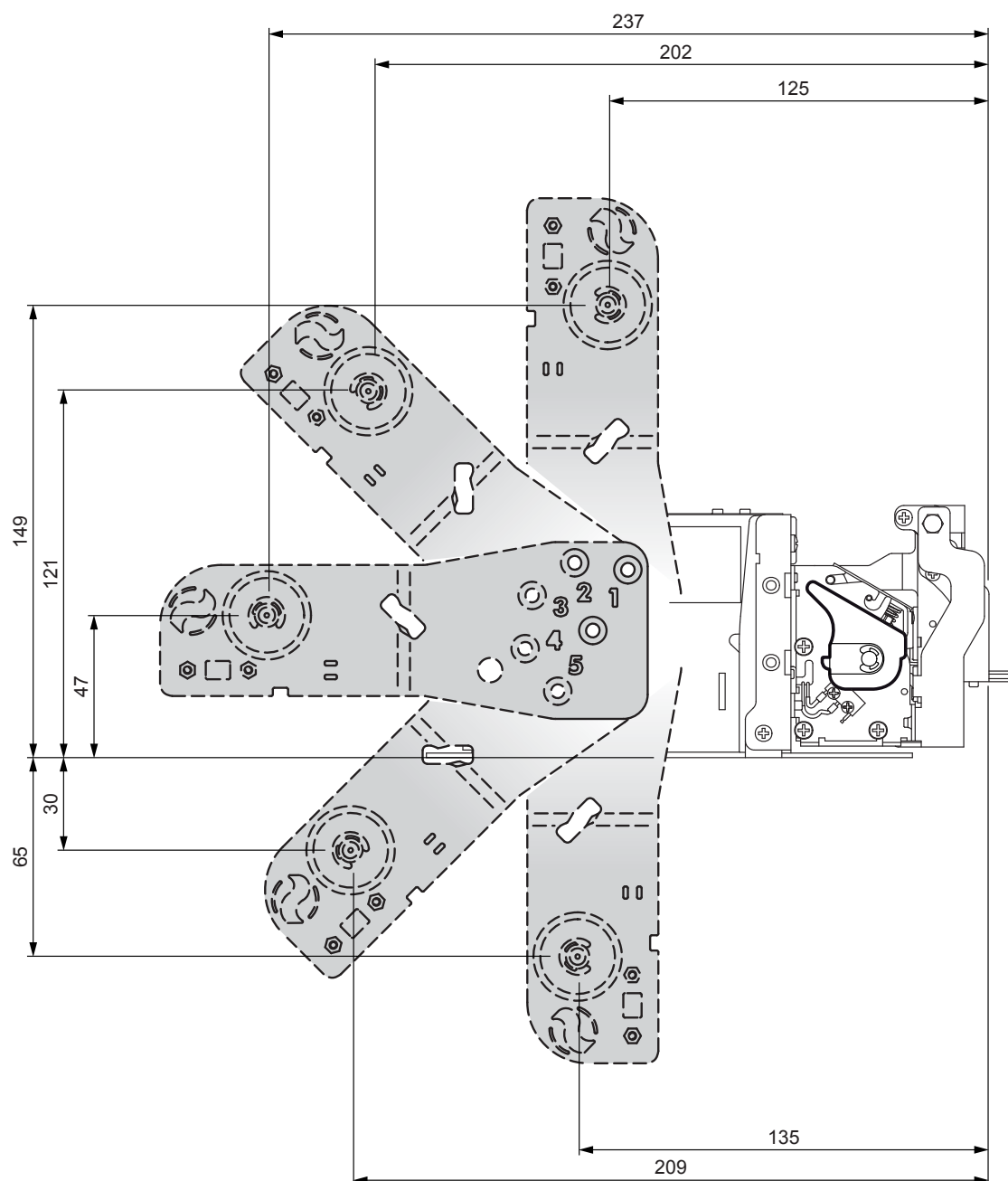
4.4 Printer dimensions with paper roll holder support (only TPTCM60II-UE)



4.5 Printer dimensions (only TPTCM60II-UC, TPTCM60II-UC-0145)



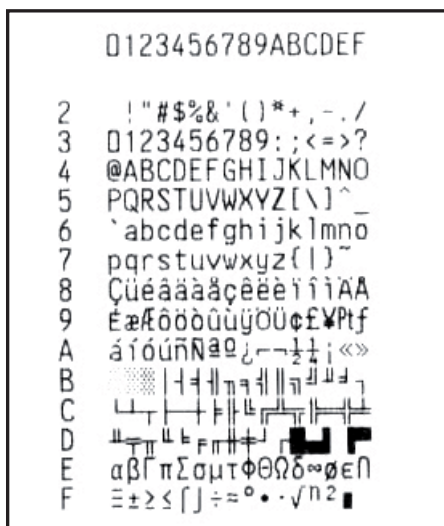
4.6 Printer dimensions with paper roll holder support (only TPTCM60II-UC, TPTCM60II-UC-0145)



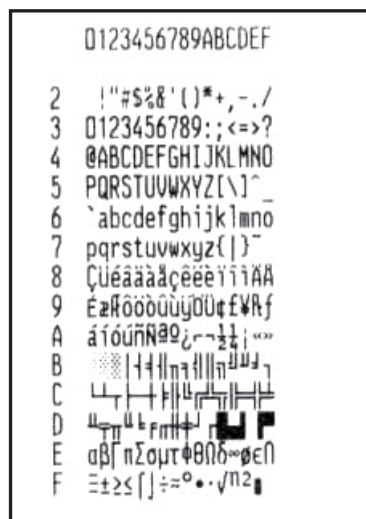
5 CHARACTER SETS

The printer has six font of 224 characters. See the following example:

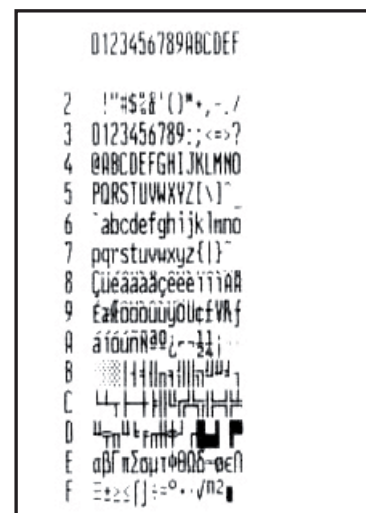
ESC/POS™ 32 Colomns



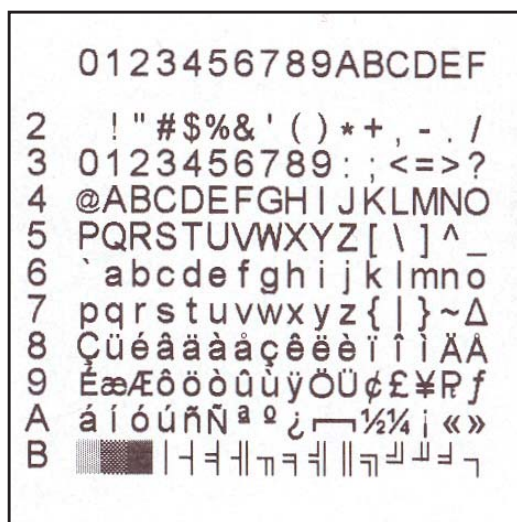
ESC/POS™ 42 Colomns



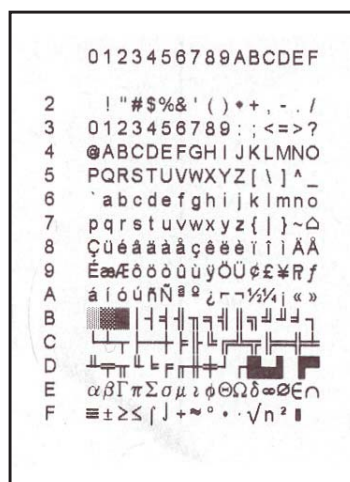
ESC/POS™ 56 Colomns



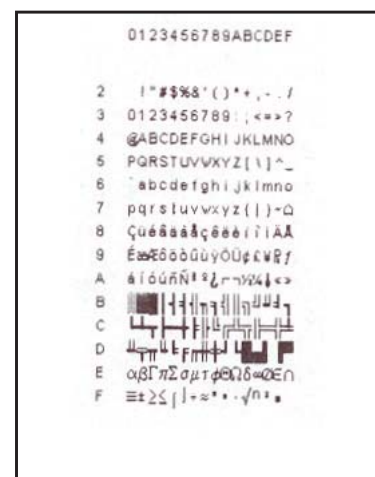
TPT 18 Colomns



TPT 28 Colomns



TPT 56 Colomns



With this version must be send two bytes to addressing characters: the first byte identifies the table, the second byte identifies the row and column in the table. In figure is reported an example of characters mapping; the x symbol identifies the character to address.

1° byte

Range: $161 \leq n \leq 169$ (A1 ÷ A9),
 $176 \leq n \leq 247$ (B0 ÷ F7),

2° byte

Range: $160 \leq m \leq 255$ (A0 , FF).

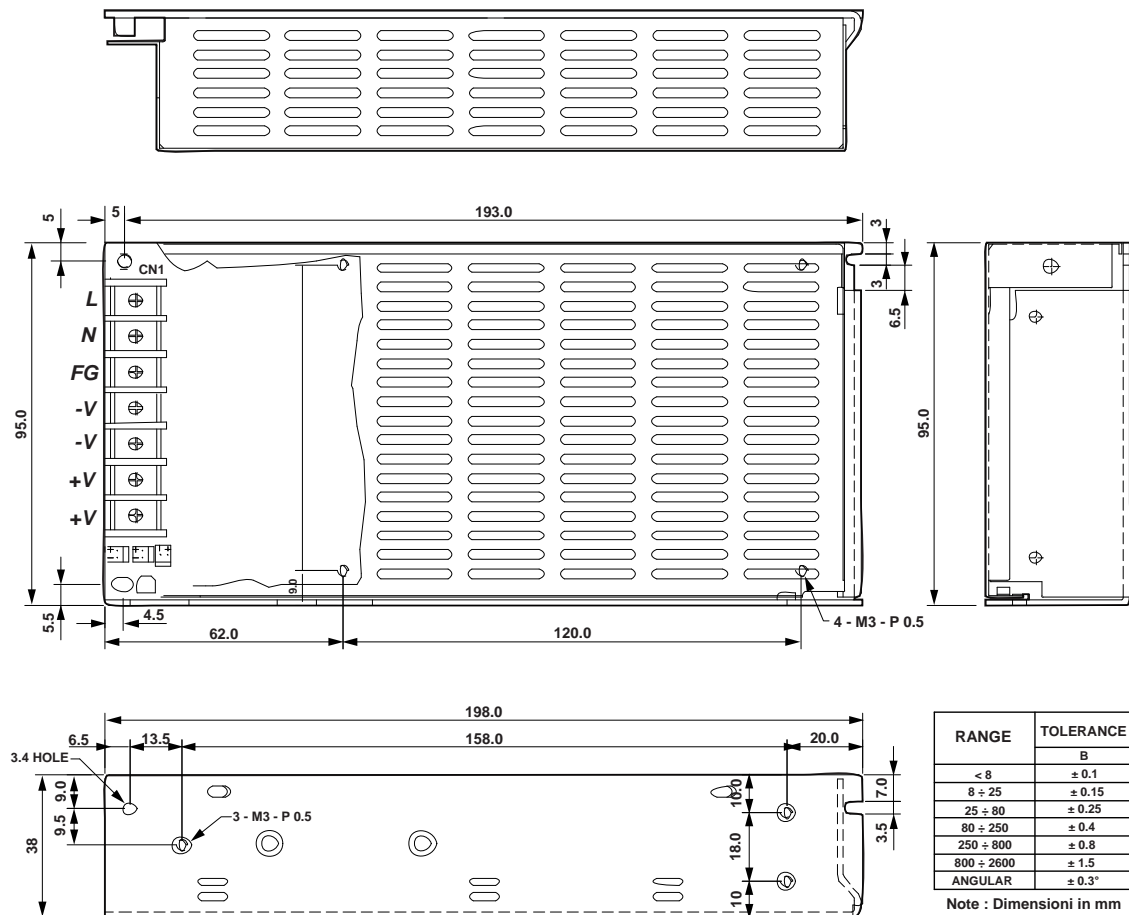
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
A1	A0																
	B0																
	C0																
	D0																
	E0									X							
	F0																
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
A9	A0																
	B0																
	C0																
	D0																
	E0																
	F0																
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
B0	A0																
	B0																
	C0						X										
	D0																
	E0																
	F0																
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
F7	A0																
	B0																
	C0																
	D0																
	E0																
	F0																X

A.1 ACCESSORIES

A.1.1 Power supply

Switching power supply 24V 100W

PPSPS-S100-24



INPUT SPECIFICATIONS

Input voltage	85 ÷ 264 V
Current	0 ÷ 4.5 A
Input frequency	47 ÷ 63 Hz

OUTPUT SPECIFICATIONS

Output voltage	24 V
Output current min.-max.	0 ÷ 4.5 A
Minimum efficiency	80%



ENVIRONMENTAL CONDITIONS

Operating temperature	0 ÷ 70 °C
Humidity	20 ÷ 85 % Rh (w/o condensation)
Storage temperature / Humidity	-10 ÷ 85 °C / 10 ÷ 95 % Rh (w/o condensation)

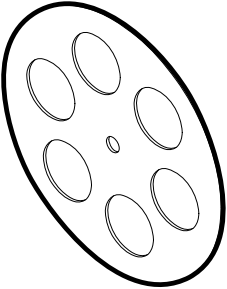
PROTECTION DEVICES:

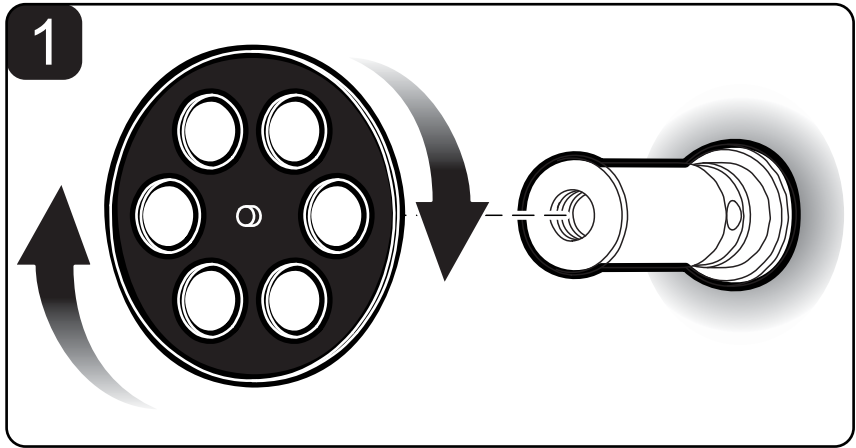
Short-circuit, overload

A.1.2 Connection cables

	WRDATI-USB-MM-AB-18-BEI	AB type USB Cable 1,8 mt
	WRDATI-RS232-9-9-18-BEI	Serial cable with 9 pin male connector / 9 pin female connector 1,80 mt

A.1.3 Counter Disc

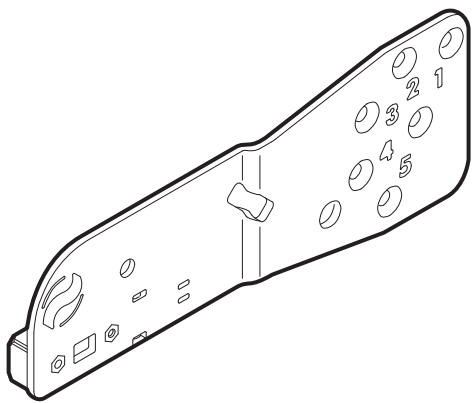
	PCXSP-DIAM135	Counter disc
---	---------------	--------------



ASSEMBLY INSTRUCTION

1. Assemble the counter-disc on the roll holder pin by screwing it in a clockwise direction (see Figure).

A.1.4 Adjustable paper roll holder support



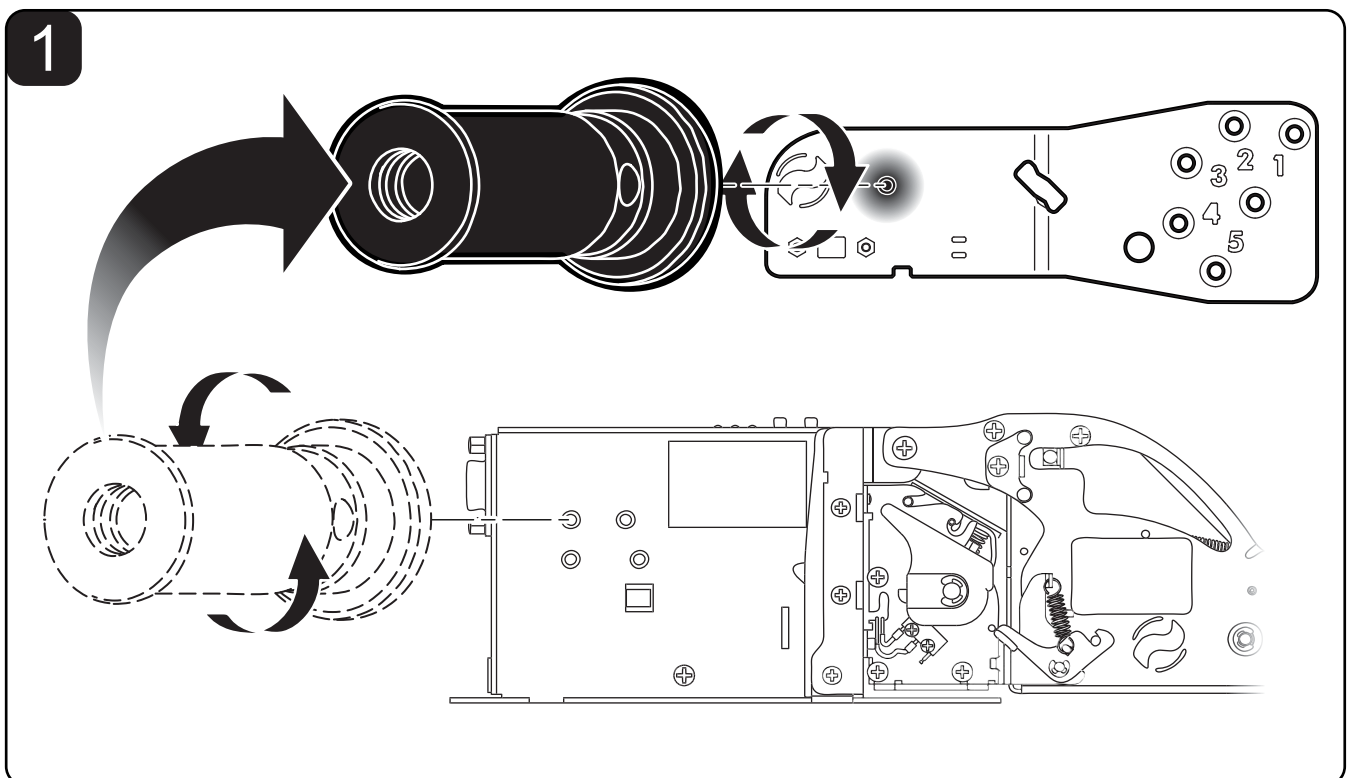
PCXSP-TPTCM60

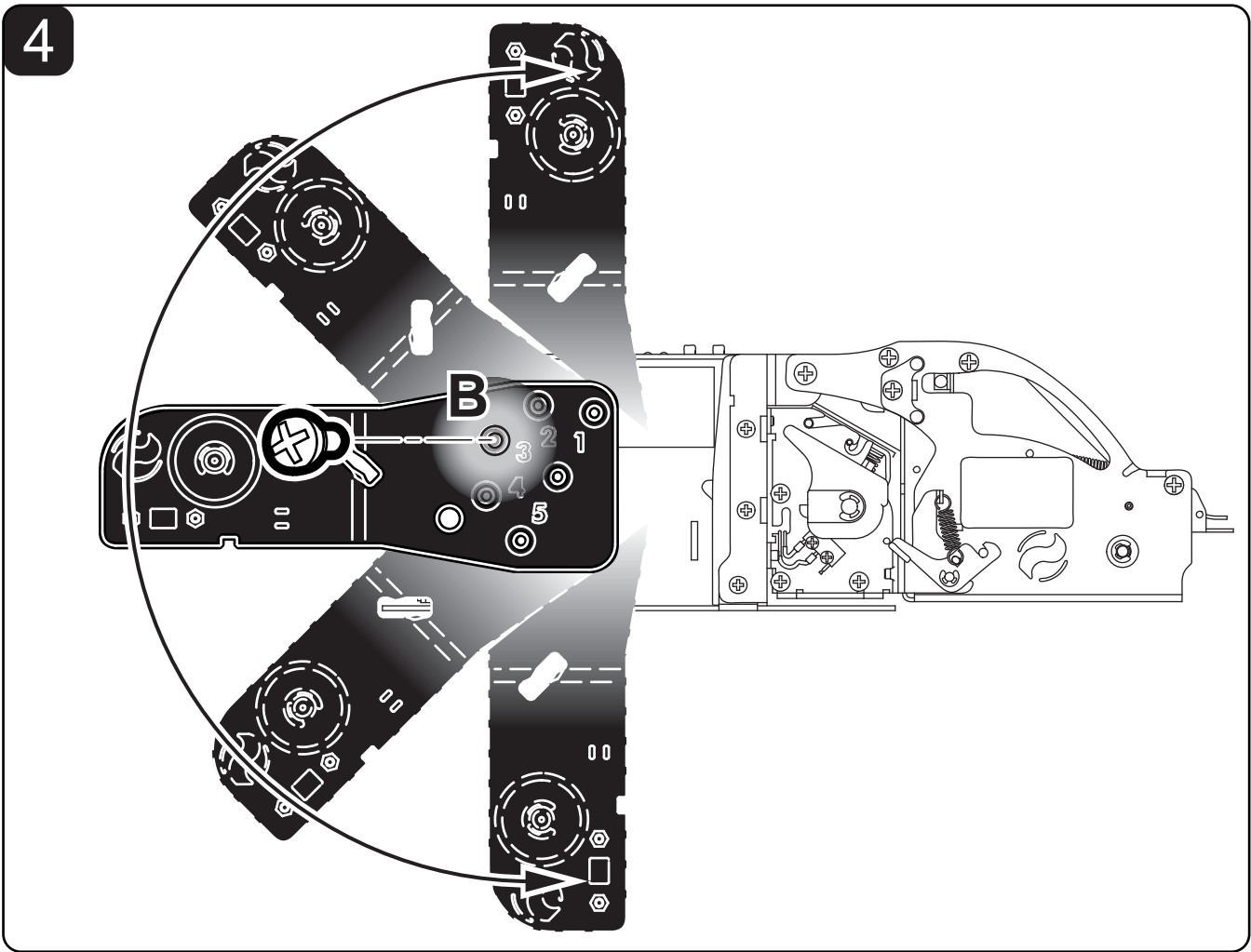
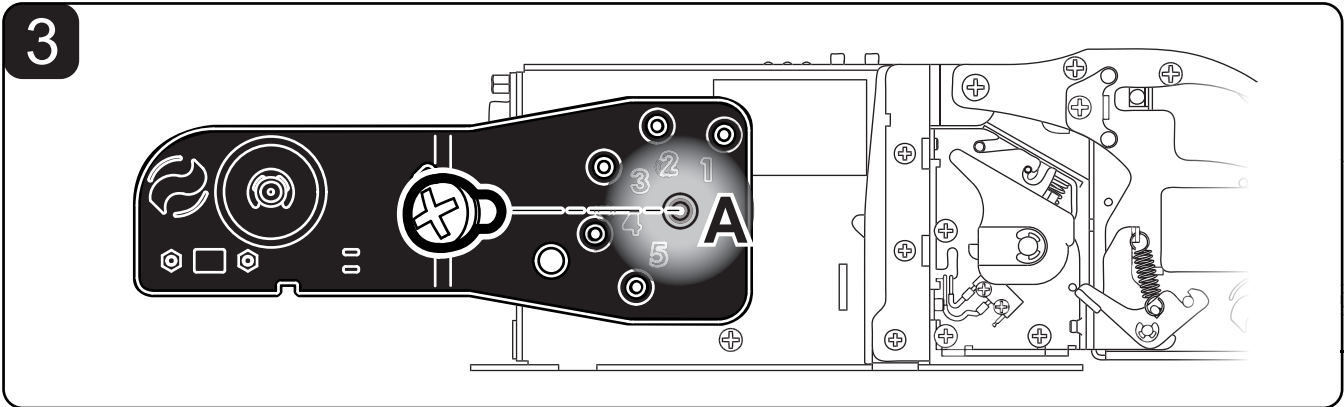
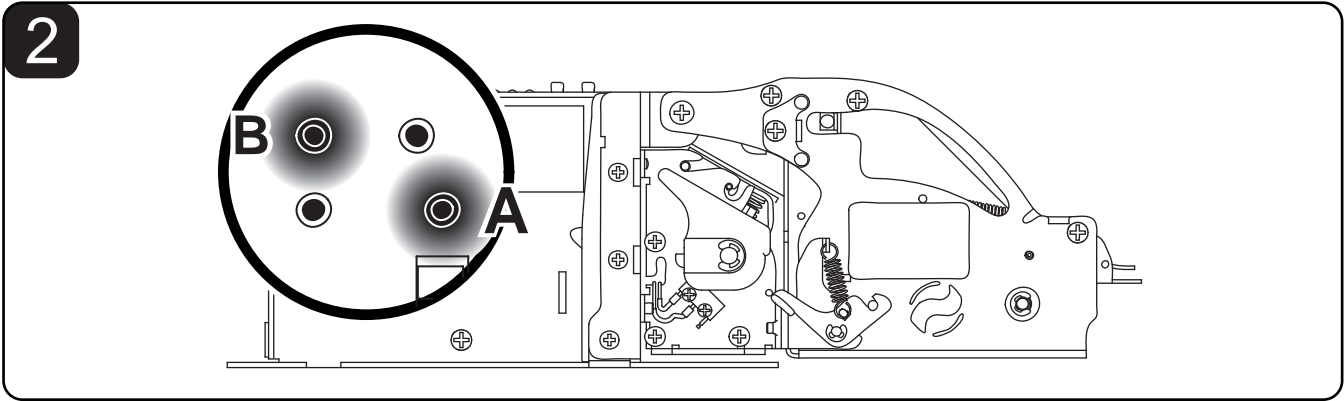
Paper roll holder support kit + NPE for 130mm paper roll + fixing screws

ASSEMBLY INSTRUCTION

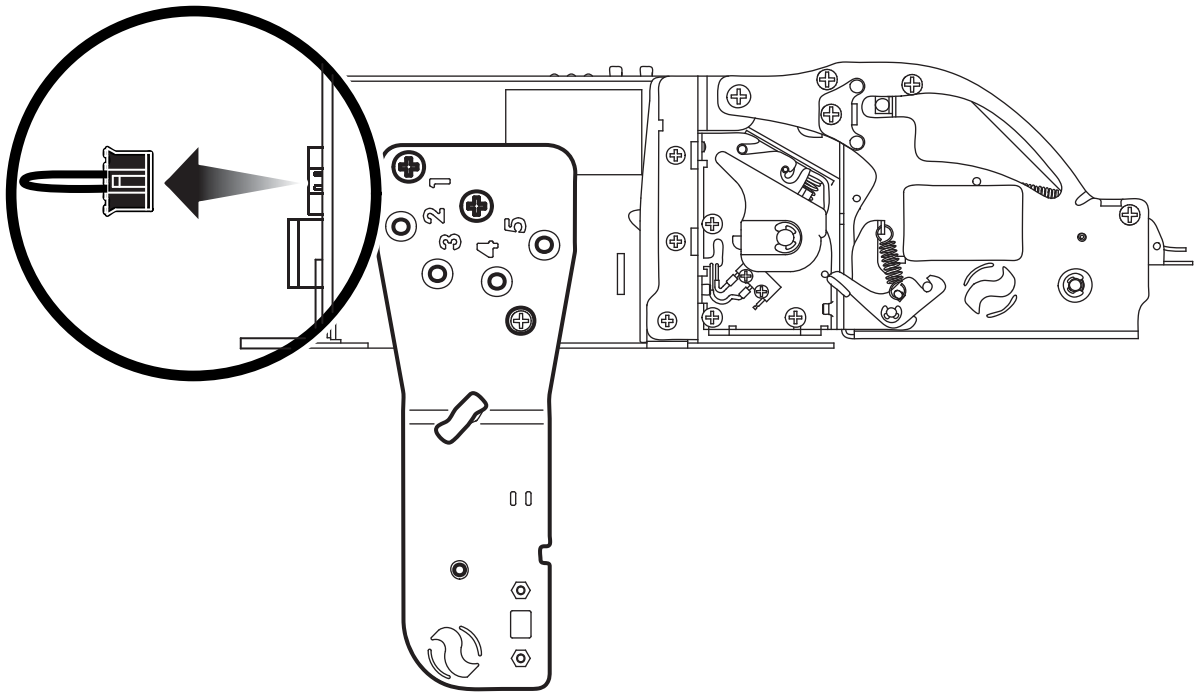
To mount the roll holder support kit on the printer proceed as follows:

1. Remove the paper roll holder pin from the printer by unscrewing it in a counter-clockwise direction. Assemble the paper roll holder pin on the support by screwing it in a clockwise direction.
2. The printer chassis is equipped with 2 fixing holes for the paper roll holder support. The hole marked with the letter **A** acts as a pivot, while the other hole **B** fastens it in the desired position.
3. Place the paper roll holder support on the printer chassis and fix it with the screw in the hole marked with **A**.
4. Rotate the support in either direction to find the desired position and fix the second screw in the hole marked with **B**.
5. Remove the plug located on the near paper end connector on the back of the printer. The near paper end sensor is disabled (see figure).
6. Insert the connector attached to the support into the same position.

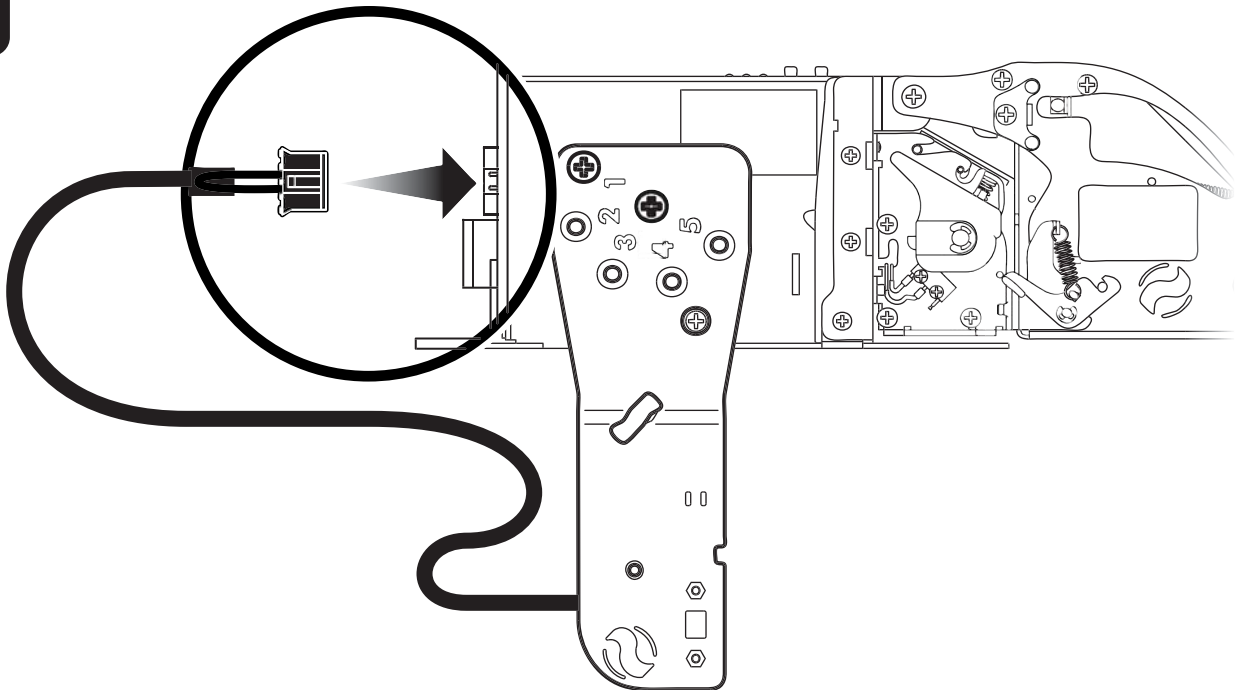




5



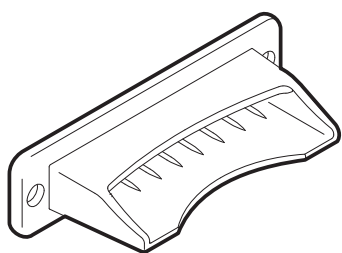
6



NOTE:

See chapter 4 for printer dimensions with paper roll holder support.

A.1.5 Plastic dispenser (only TPTCM60II-UE)



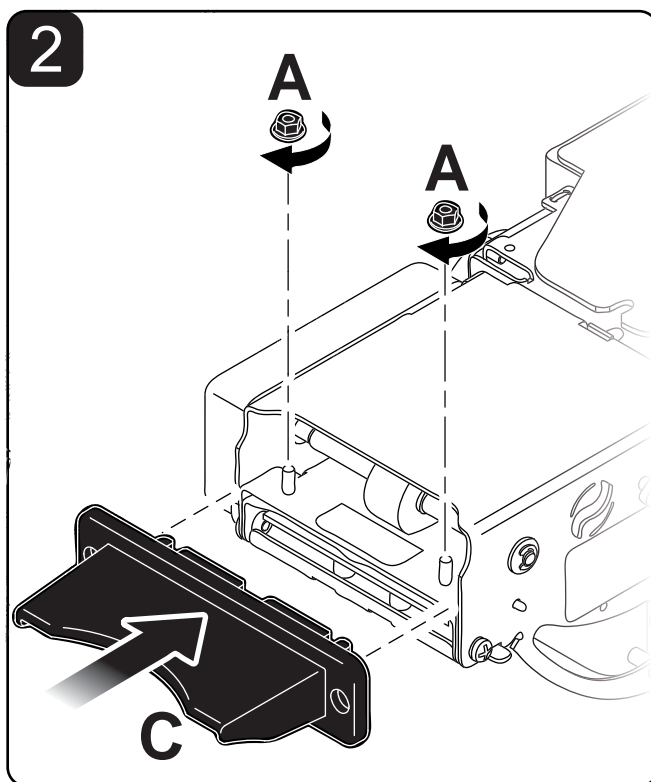
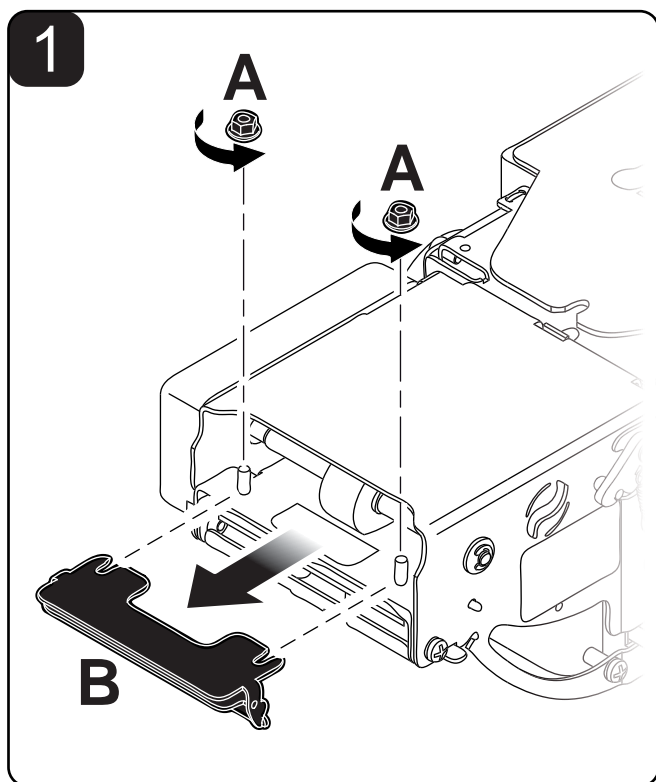
SCOUTPAPER-60

Plastic paper outfeed slot - 60 mm

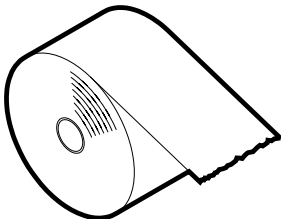
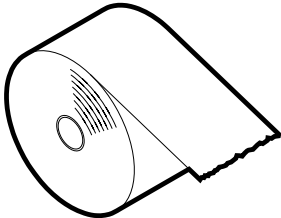
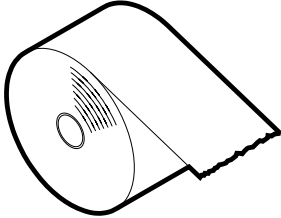
ASSEMBLY INSTRUCTION

To mount the plastic dispenser on the paper outfeed slot, proceed as follows:

1. Turn the printer upside-down and unscrew the two nuts (A) as shown in figure. Pull in the direction indicated by the arrow to remove the paper slot (B).
2. Assemble the plastic slot (C) as shown in figure and fix it to the inserts using the two nuts (A).



A.2 SPARE PARTS

	RCT60X95-25MM-70GR	Thermal paper roll 60mm (d=95 core 25mm)
	RCT60X130-25MM-70GR	Thermal paper roll 60mm (d=130 core 25mm)
	RCT80X180-25MM	Thermal paper roll (60mm d=180 core 25mm)

CUSTOM



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Research Scientifi
T e c h n o l o g
Authorized laborator
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World Headquarters

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